



(Corporate Contracts Department)  
The Tata Power Company Limited, 2nd Floor, Sahar Receiving Station  
Sahar Airport Road, Andheri East, Mumbai-400059

### **Procedure for Participating in Tender**

<b>Tender Enquiry No.</b>	<b>Work Description</b>	<b>Tender Participation Fee</b>	<b>Last date and time for Payment of Tender Participation Fee</b>
TPCODM/SA/O/W 040	General Civil Works at Various Circles of Wesco Utility	Rs. 1000/-	30.12.2020 1500 Hrs.

**Please note that corresponding details mentioned in this document will supersede any other details mentioned anywhere else in the Tender Document.**

**Procedure for Participating in Tender. Following steps to be done before “Last date and time for Payment of Tender Participation Fee” as mentioned above**

1. Eligible and Interested Bidders to submit duly signed and stamped letter on Bidder's letterhead indicating
  - a. Tender Enquiry number
  - b. Name of vendors authorized person
  - c. Contact number
  - d. e-mail id
  - e. Details of submission of Tender Participation Fee
2. Non-Refundable Tender Participation Fee, as indicated in table above, to be submitted in the form of

Direct deposit in the following bank account and submit the receipt along with a covering letter clearly indicating the Tender Reference number –

Beneficiary Name – The Tata Power Co. Ltd.

Bank Name – HDFC Bank Ltd.

Branch Name – Fort Branch, Mumbai

Address – Maneckji Wadia Building, Nanik Motwani Marg, Fort, Mumbai 400023.

Branch Code – 60

Bank & Branch Code – 400240015

Account No – 00600110000763

Account type – CC

IFSC Code – HDFC0000060

E-mail with necessary attachment of 1 and 2 above to be sent to [sameer.arya@tatapower.com](mailto:sameer.arya@tatapower.com) with copy to [nkandi@tatapower.com](mailto:nkandi@tatapower.com) , [mrpatel@tatapower.com](mailto:mrpatel@tatapower.com) before “Last date and time for Payment of Tender Participation Fee”

Interested bidders to submit Tender Participation Fee and Authorization Letter before Last date and time as indicated above after which link from Tata Power E-Tender system (Ariba) will be shared for further communication and bid submission.

Please note all future correspondence regarding the tender, bid submission, bid submission date extension, Pre-bid query etc. will happen only through Tata Power E-Tender system (Ariba). User manual to guide the bidders to submit the bid through e-Tender system (Ariba) is also enclosed.

No e-mail or verbal correspondence will be responded. All communication will be done strictly with the bidder who have done the above steps (Payment of tender fee and submission of letter with requisite details) to participate in the Tender.

Also, it may be strictly noted that once date of "Last date and time for Payment of Tender Participation Fee" is lapsed no Bidder will be sent link from Tata Power E-Tender System (Ariba). Without this link vendor will not be able to participate in the tender. Any last moment request to participate in tender will not be entertained.

Any payment of Tender Participation Fee / EMD by Bidder who have not done the pre-requisite within stipulated timeline will not be refunded.



**TENDER DOCUMENTS**

CONFIDENTIAL

**OPEN TENDER NOTIFICATION**

**FOR**

**RATE CONTRACT FOR GENERAL CIVIL WORKS AT VARIOUS  
CIRCLES OF WESCO UTILITY**

**Tender Enquiry No.: TPCODM/SA/O/W040**

**Due Date for Bid Submission: 07.01.2021 [15:00 Hrs.]**

**The Tata Power Company Limited  
Mumbai, Maharashtra**

**(Tender for Upcoming Distribution Circle at Odisha-WESCO)**

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## 1.0 Event Information

### 1.1 Scope of work

Open Tenders are invited in through e-tender bidding process from interested and eligible Bidders for entering into a Rate Contract valid for a period of **1 Year** as defined below :

Line Item no.	Description	EMD Amount (Rs.)	Tender Fee (Rs.)
1	Rate Contract for General Civil Works under Various Circles of Wesco Utility	15,000/-	1,000

***Tender evaluation criteria shall be based on BOQ item rate basis (Circle wise). Bidder can quote for one or more circle (Refer Annexure-II for Circle Details) of his choice based on their capacity to work at different sites simultaneously.***

### 1.2 Availability of Tender Documents

Refer "Procedure for participating in tender".

### 1.3 Calendar of Events

(a)	Date of sale/ availability of tender documents from TPC Website	From 22 <sup>nd</sup> December 2020 onwards
(b)	Date by which interested and eligible vendors to pay tender fee and confirm participation in accordance with "Procedure for participating in tender"	30 <sup>th</sup> December 2020, 1500 Hrs.
(c)	Date & Time of Pre-Bid Meeting (If any)	NA
(d)	Last Date of receipt of pre-bid queries, if any	NA
(e)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	NA
(f)	Last date and time of receipt of Bids	7 <sup>th</sup> January 2021 up to 1500 Hrs.
(g)	Date & Time of opening technical bids & EMD (Envelope-1 & 2)	Participating Bidders will get mail intimation from Tata Power E-Tender system (Ariba) when their Technical Bids are opened. Refer Section 4.2 for details
(h)	Date & Time of opening for Price of qualified bids	Bidders will get mail intimation from Tata Power E-Tender system (Ariba) when their Price Bids are opened. Refer Section 4.5 for details.

**Note :-** In the event of extension of last date of submission of bids, same shall be intimated to the participating bidders through e-tender system.

### 1.4 Mandatory documents required along with the Bid

- 1.4.1 EMD of requisite value and validity
- 1.4.2 Tender Fee in case the tender is downloaded from website
- 1.4.3 Requisite Documents for compliance to Qualification Criteria mentioned in Clause 1.7.

- 1.4.4 Duly signed and stamped 'Schedule of Deviations' as per Annexure III on bidder's letter head.
- 1.4.5 Duly signed and stamped 'Schedule of Commercial Specifications' as per Annexure IV on bidder's letter head.
- 1.4.6 Proper authorization letter/ Power of Attorney to sign the tender on the behalf of bidder.
- 1.4.7 Copy of PAN, GST, PF and ESI Registration (In case any of these documents is not available with the bidder, same to be explicitly mentioned in the 'Schedule of Deviations')

***Please note that in absence of any of the above documents, the bid submitted by a bidder shall be liable for rejection.***

### **1.5 Deviation from Tender**

Normally, the deviations to tender terms are not admissible and the bids with deviation are liable for rejection. Hence, the bidders are advised to refrain from taking any deviations on this Tender. Still in case of any deviations, all such deviations shall be set out by the Bidders, clause by clause in the 'Annexure III - Schedule of Deviations' and same shall be submitted as a part of the Technical Bid.

### **1.6 Right of Acceptance/ Rejection**

Bids are liable for rejection in absence of following documents:-

- 1.6.1 EMD of requisite value and validity
- 1.6.2 Tender fee of requisite value
- 1.6.3 Price Bid as per the Price Schedule mentioned in Annexure-I
- 1.6.4 Necessary documents against compliance to Qualification Requirements mentioned at Clause 1.7 of this Tender Document.
- 1.6.5 Filled in Schedule of Deviations as per Annexure III
- 1.6.6 Filled in Schedule of Commercial Specifications as per Annexure IV
- 1.6.7 Receipt of Bid within the due date and time

TPC reserves the right to accept/reject any or all the bids without assigning any reason thereof.

### **1.7 Qualification Criteria**

- 1. The bidder should have experience of carrying out similar nature of civil work (civil foundation, PCC, RCC works, brick work, plastering, tiling works, structural steel works, excavation works, etc.) and the cumulative value of works executed during last 3 years should be equal to or greater than Rs. 25 lakhs.***

### **1.8 Marketing Integrity**

We have a fair and competitive marketplace. The rules for bidders are outlined in the Terms & Conditions. Bidders must agree to these rules prior to participating. In addition to other remedies available, TPC reserves the right to exclude a bidder from participating in future markets due to the bidder's violation of any of the rules or obligations contained in the General Condition of Contracts. A bidder who violates the marketplace rules or engages in behavior that disrupts the fair execution of the marketplace, may result in restriction of a bidder from further participation in the marketplace for a length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honor prices submitted to the marketplace
- Breach of terms as published in TENDER/NIT

### 1.9 Supplier Confidentiality

All information contained in this tender is confidential and shall not be disclosed, published or advertised in any manner without written authorization from TPC. This includes all bidding information submitted to TPC. All tender documents remain the property of TPC and all suppliers are required to return these documents to TPC upon request. Suppliers who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

### 2.0 Evaluation Criteria

- The bids will be evaluated technically on the compliance to tender terms and conditions.
- The bids will be evaluated commercially on **lowest cost (circle wise)** as calculated in Schedule of Items [Annexure I]. TPC reserves the right to split the contract / order among more than one Bidder. Hence all bidders are advised to quote their most competitive rates against each line item.
- Bidder has to mandatorily quote as per schedule of item [Annexure-I]. Bidder can quote for one or more circle as per their choice. Failing to do so TPC may reject the bid.

**2.1 Price Variation Clause:** The prices shall remain **firm** during the entire contract period.

### 3.0 Submission of Bid Documents

#### 3.1 Bid Submission

Bidders are requested to submit their offer in line with this Tender document.

All correspondence regarding the tender, bid submission, bid submission date extension, Pre-bid query etc. will happen only through Tata Power E-Tender system (Ariba).

No e-mail or verbal correspondence will be responded. All communication will be done strictly with the bidders who have participated in the Tender as elaborated in procedure for participating in tender.

Bids shall be submitted in 3 (Three) parts:

**FIRST PART:** “EMD” as applicable shall be submitted by the bidder in the form of cash deposit in below account. In case the EMD is not submitted by the bidder then the bid as submitted shall be liable for rejection.

**EMD shall be strictly in the format of Cash Deposit / Online Transfer only. Bidder should submit a covering letter mentioning the Online Transaction Number, Tender Number, Name of Tender for the same.**

**Beneficiary Name – The Tata Power Co. Ltd.  
Bank Name – HDFC Bank Ltd.  
Branch Name – Fort Branch, Mumbai  
Address – Maneckji Wadia Building, Nanik Motwani Marg, Fort, Mumbai  
400023.  
Branch Code – 60  
Bank & Branch Code – 400240015  
Account No – 00600110000763  
Account type – CC  
IFSC Code – HDFC0000060**

**SECOND PART: "TECHNICAL BID"** shall contain the following documents:

- a) Documentary evidence in support of qualifying criteria
- b) Qualified manpower
- c) List of Tools & Tackles
- d) Work completion certificates for civil / fabrication works
- e) Undertaking on Vendors letter head for meeting the Pre-Qualification Criteria
- f) No Deviation Certificate as per the Annexure III – Schedule of Deviations
- g) Acceptance to Commercial Terms and Conditions viz Delivery schedule/period, payment terms etc. as per the Annexure IV – Schedule of Commercial Specifications.

**The technical bid shall be properly indexed and is to be submitted through e-tender. Hard Copy of Technical Bids not to be submitted.**

**THIRD PART: "PRICE BID"** shall contain only the price details and strictly in format as mentioned in Annexure I with explicit break up of basic prices, Taxes & duties, Freight etc. In case any discrepancy is observed between the item description stated in Schedule of Items mentioned in the tender and the price bid submitted by the bidder, the item description as mentioned in the tender document (to the extent modified through Corrigendum issued if any) shall prevail. Price Bid is to be submitted in Soft Copy through Tata Power E-Tender system (Ariba) only. **Hard Copy of Price Bid not to be submitted.**

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#### **SIGNING OF BID DOCUMENTS:**

The bid must contain the name, residence and place of business of the person or persons making the bid and must be signed and sealed by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below the signature.

The Bid being submitted must be signed by a person holding a Power of Attorney authorizing him to do so, certified copies of which shall be enclosed.

The Bid submitted on behalf of companies registered with the Indian Companies Act, for the time being in force, shall be signed by persons duly authorized to submit the Bid on behalf of the Company and shall be accompanied by certified true copies of the resolutions, extracts of Articles of Association, special or general Power of Attorney etc. to show clearly the title, authority and designation of persons signing the Bid on behalf of the Company. Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the bid.

A bid by a person who affixes to his signature the word 'President', 'Managing Director', 'Secretary', 'Agent' or other designation without disclosing his principal will be rejected.

The Bidder's name stated on the Proposal shall be the exact legal name of the firm.

#### **3.2 Contact Information**

Please note all correspondence regarding the tender, bid submission, bid submission date extension, Pre-bid query etc. will happen only through Tata Power E-Tender system (Ariba).

No e-mail or verbal correspondence will be responded. All communication will be done strictly with the bidders who have participated in the Tender as elaborated in procedure for participating in tender.

**Communication Details:**

**Package Owner: Sameer Aarya**  
Email ID: [sameer.aarya@tatapower.com](mailto:sameer.aarya@tatapower.com)

**Copy to:**  
**Kandi Nagdhar**  
Email ID: [nkandi@tatapower.com](mailto:nkandi@tatapower.com)

**Head Contracts – T&D**

**Name: Mr. Milan Patel**  
E-Mail ID: [mrpatel@tatapower.com](mailto:mrpatel@tatapower.com)

**Bidders are strictly advised to communicate with Package Owner through Tata Power E-tender System (Ariba) only. They need to pay Tender Participation Fee and receive the Ariba log-in. Above contact details are for reference purpose only.**

**3.3 Bid Prices**

Bidders shall quote for the entire Scope of Supply / work with a breakup of prices for individual items and Taxes & duties. The bidder shall complete the appropriate Price Schedules included herein, stating the Unit Price for each item & total price with taxes, duties & freight up to destination at various sites of TPC. The all-inclusive prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during the execution of the supply work, breakup of price constituents.

The quantity breakup shown else-where other than Price Schedule is tentative. The bidder shall ascertain himself regarding material required for completeness of the entire work. Any items not indicated in the price schedule, but which are required to complete the job as per the Technical Specifications / Scope of Work mentioned in the tender, shall be deemed to be included in prices quoted.

**3.4 Bid Currencies**

Prices shall be quoted in Indian Rupees Only.

**3.5 Period of Validity of Bids**

Bids shall remain valid for 180 days from the due date of submission of the bid.

Notwithstanding clause above, the TPC may solicit the Bidder's consent to an extension of the Period of Bid Validity. The request and responses thereto shall be made in writing.

**3.6 Alternative Bids**

Bidders shall submit Bids, which comply with the Bidding documents. Alternative bids will not be considered. The attention of Bidders is drawn to the provisions regarding the rejection of Bids in the terms and conditions, which are not substantially responsive to the requirements of the bidding documents.

### 3.7 Modifications and Withdrawal of Bids

The bidder is not allowed to modify or withdraw its bid after the Bid's submission. The EMD as submitted along with the bid shall be liable for forfeiture in such event.

### 3.8 Earnest Money Deposit (EMD)

The bidder shall furnish, as part of its bid, an EMD amounting as specified in the tender. The EMD is required to protect the TPC against the risk of bidder's conduct which would warrant forfeiture.

**The EMD shall be forfeited in case of:**

- a) The bidder withdraws its bid during the period of specified bid validity.

Or

- b) The case of a successful bidder, if the Bidder does not  
i) accept the purchase order, or  
ii) furnish the required performance security BG

### 3.9 Type Tests (if applicable)

The type tests specified in TPC specifications should have been carried out within five years prior to the date of opening of technical bids and test reports are to be submitted along with the bids. If type tests carried out are not within the five years prior to the date of bidding, the bidder will arrange to carry out type tests specified, at his cost. The decision to accept/ reject such bids rests with TPC.

## 4.0 Bid Opening & Evaluation process

### 4.1 Process to be confidential

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any effort by a Bidder to influence the TPC's processing of Bids or award decisions may result in the rejection of the Bidder's Bid.

**4.2 Technical Bid Opening** The bids shall be opened internally by TPC. First the envelope marked "EMD" will be opened. Bids without EMD/ cost of tender (if applicable) of required amount/ validity in prescribed format, shall be rejected.

Next, technical bids of bidders who have submitted EMD shall be opened. Participating Bidders will get mail intimation from Tata Power E-Tender system (Ariba) when their Technical Bids are opened.

### 4.3 Preliminary Examination of Bids/ Responsiveness

TPC will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order. TPC may ask for submission of original documents in order to verify the documents submitted in support of qualification criteria.

Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price per item that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price per item will be corrected. If there is a discrepancy between the Total Amount and the sum of the total price per item, the sum of the total price per item shall prevail and the Total Amount will be corrected.

Prior to the detailed evaluation, TPC will determine the substantial responsiveness of each Bid to the Bidding Documents including production capability and acceptable quality of the Goods offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviation.

Bid determined as not substantially responsive will be rejected by the TPC and/or the TPC and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

#### **4.4 Techno Commercial Clarifications**

Bidders need to ensure that the bids submitted by them are complete in all respects. To assist in the examination, evaluation and comparison of Bids, TPC may, at its discretion, ask the Bidder for a clarification on its Bid for any deviations with respect to the TPC specifications and attempt will be made to bring all bids on a common footing. All responses to requests for clarification shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted owing to any clarifications sought by TPC.

#### **4.5 Price Bid Opening**

Price Bid of only Technically and / or Safety Qualified Bidders shall be considered and open internally by TPC. Bidders will get mail intimation from Tata Power E-Tender system (Ariba) when their Price Bids are opened. The EMD of the bidder withdrawing or substantially altering his offer at any stage after the technical bid opening will be forfeited at the sole discretion of TPC without any further correspondence in this regard.

#### **4.6 Not Used**

#### **4.7 Reverse Auctions**

TPC reserves the right to conduct the reverse auction (instead of public opening of price bids) for the products/ services being asked for in the tender. The terms and conditions for such reverse auction events shall be as per the Acceptance Form attached as Annexure VI of this document. The bidders along with the tender document shall mandatorily submit a duly signed copy of the Acceptance Form attached as Annexure VI as a token of acceptance for the same.

### **5.0 Award Decision**

TPC will award the contract to the successful bidder whose bid has been determined to be the lowest-evaluated responsive bid as per the Evaluation Criterion mentioned at Clause 2.0. The Cost for the said calculation shall be taken as the all-inclusive cost quoted by bidder in Annexure I (Schedule of Items) subject to any corrections required in line with Clause 4.3 above. The decision to place rate contract / purchase order / LOI solely depends on TPC on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that TPC may deem relevant.

TPC reserves all the rights to award the contract to one or more bidders so as to meet the delivery requirement or nullify the award decision without assigning any reason thereof.

In case any supplier is found unsatisfactory during the delivery process, the award will be cancelled and TPC reserves the right to award other suppliers who are found fit.

**NOTE :** Please note that Intimation of Price Bid Opening will go only to those bidders who are Technically Acceptable and whose price bid are opened. Bidders who are not successful in technical or commercial part of the process will be intimated to collect EMD only after end of process.

It is informed that TPC shall not provide status updates or give explanation of process followed for bidder selection criteria whatsoever, to any participating bidder.

## **6.0 Order of Preference/Contradiction:**

In case of contradiction in any part of various documents in tender, following shall prevail in order of preference:

1. Schedule of Items (Annexure I)
2. Post Award Contract Administration (Clause 7.0)
3. Submission of Bid Documents (Clause 3.0)
4. Scope of Work and SLA (if any)
5. Technical Specifications (Annexure II)
6. Inspection Test Plan (if any)
7. Acceptance Form for Participation in Reverse Auction (Annexure VI)
8. Commercial Terms & Conditions
9. General Conditions of Contract (Annexure VII)

## **7.0 Post Award Contract Administration**

### **7.1 Other Terms & Conditions**

- After finalization of tender, Rate Contract shall be issued on successful bidder with a validity period of **One Year**. Prices shall remain firm till validity of issued rate contract. Within the validity of rate contract and as per requirement, release order shall be issued time to time.
- As the works are scattered and are at different locations same may be awarded on as and when required basis. Bidder will have to complete the same as per mutually agreed schedule.
- Business Associate (BA) shall submit applicable Contract Performance Bank Guarantee as per Terms & Conditions / GCC within 30 days of issuance of rate contract. CPBG applicable shall 5% of Rate Contract Value. CPBG submitted, shall be released after completion of applicable guarantee period plus one month.
- Rate contract shall remain valid for a period of 1 year from date of award of work.
- TPC shall short close the issued Release Order / Rate contract, in case of any quality issues, front issue, non-mobilization from vendor for taking up the works / not completing works in time.
- Any change in statutory taxes, duties and levies shall be borne by TPC.
- All other terms and conditions of TPC Terms & Conditions shall be applicable.

### **7.2 Not Used**

### **7.3 Delivery Terms**

Rate contract will remain valid for a period of 1 year from date of award of work. However, delivery period for specific work shall be mentioned in Firm Work Order / NTP OR will have to complete the different works in same order as per mutually agreed schedule.

### **7.4 Warranty Period / Defect Liability Period:**

DLP shall be 12 months from the date of work completion.

#### **7.5 Payment Terms – As per Annexure-VII**

#### **7.6 Climate Change**

Significant quantities of waste are generated during the execution of project and an integrated approach for effective handling, storage, transportation and disposal of the same shall be adopted. This would ensure the minimization of environmental and social impact in order to combat the climate change

#### **7.7 Ethics**

- TPC is an ethical organization and as a policy TPC lays emphasis on ethical practices across its entire domain. Bidder should ensure that they should abide by all the ethical norms and in no form either directly or indirectly be involved in unethical practice.
- TPC work practices are governed by the Tata Code of Conduct which emphasizes on the following:
- We shall select our suppliers and service providers fairly and transparently.
- We seek to work with suppliers and service providers who can demonstrate that they share similar values. We expect them to adopt ethical standards comparable to our own.
- Our suppliers and service providers shall represent our company only with duly authorized written permission from our company. They are expected to abide by the Code in their interactions with, and on behalf of us, including respecting the confidentiality of information shared with them.
- We shall ensure that any gifts or hospitality received from, or given to, our suppliers or service providers comply with our company's gifts and hospitality policy.
- We respect our obligations on the use of third party intellectual property and data.

Bidder is advised to refer GCC attached at Annexure IX for more information.

Any ethical concerns with respect to this tender can be reported to the following email ID: [cecounsellor@tatapower.com](mailto:cecounsellor@tatapower.com)

#### **8.0 Not Used**

#### **9.0 General Condition of Contract**

Any condition not mentioned above shall be applicable as per GCC attached along with this tender.

#### **10.0 Safety**

Safety related policies can be accessed on Company's website .

<http://www.tatapower.com>



Tender Ref No. TPCODM/SA/O/W040

**ANNEXURE I**  
**Schedule for Items**

**NOTE: Please refer attached Bill of Quantity (BOQ)**

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Tender Ref No. TPCODM/SA/O/W040

**ANNEXURE II**

**Attached Separately**

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**ANNEXURE III**

**Schedule of Deviations**

*Bidders are advised to refrain from taking any deviations on this TENDER. Still in case of any deviations, all such deviations from this tender document shall be set out by the Bidders, Clause by Clause in this schedule and submit the same as a part of the **Technical Bid**.*

*Unless **specifically** mentioned in this schedule, the tender shall be deemed to confirm the TPC's specifications:*

S. No.	Clause No.	Tender Clause Details	Details of deviation with justifications

*By signing this document we hereby withdraw all the deviations whatsoever taken anywhere in this bid document and comply to all the terms and conditions, technical specifications, scope of work etc. as mentioned in the standard document except those as mentioned above.*

**Seal of the Bidder:**

**Signature:**

**Name:**

**ANNEXURE IV**

**Schedule of Commercial Specifications**

*(The bidders shall mandatorily fill in this schedule and enclose it with the offer Part I: Technical Bid. In the absence of all these details, the offer may not be acceptable.)*

<b>S. No.</b>	<b>Particulars</b>	<b>Remarks</b>
1.	Prices firm or subject to variation (If variable indicate the price variation clause with the ceiling if applicable)	Firm / Variable
1a.	If variable price variation on clause given	Yes / No
1b.	Ceiling	----- %
1c.	Inclusive of Excise Duty	Yes / No (If Yes, indicate % rate)
1d.	Sales tax applicable at concessional rate	Yes / No (If Yes, indicate % rate)
1e.	Octroi payable extra	Yes / No (If Yes, indicate % rate)
1f.	Inclusive of transit insurance	Yes / No
2.	Delivery	Weeks / months
3.	Guarantee clause acceptable	Yes / No
4.	Terms of payment acceptable	Yes / No
5.	Performance Bank Guarantee acceptable	Yes / No
6.	Liquidated damages clause acceptable	Yes / No
7.	Validity (180 days) (From the date of opening of technical bid)	Yes / No
8.	Inspection during stage of manufacture	Yes / No
9.	Rebate for increased quantity	Yes / No (If Yes, indicate value)
10.	Change in price for reduced quantity	Yes / No (If Yes, indicate value)
11.	Covered under Small Scale and Ancillary Industrial Undertaking Act 1992	Yes / No (If Yes, indicate, SSI Reg'n No.)

**ANNEXURE V**

**Checklist of all the documents to be submitted with the Bid**

Bidder has to mandatorily fill in the checklist mentioned below:-

S. No.	Documents attached	Yes / No / Not Applicable
1	EMD of required value	
2	Tender Fee as mentioned in this RFQ	
3	Company profile/ organogram	
4	Signed copy of this RFQ as an unconditional acceptance	
5	Duly filled schedule of commercial specifications (Annexure IV)	
6	Sheet of commercial/ technical deviation if any (Annexure III)	
7	Balance sheet for the last completed three financial years; mandatorily enclosing Profit & loss account statement	
8	Acknowledgement for Testing facilities if available (duly mentioned on bidder letter head)	
9	List of Machine/ tools with updated calibration certificates if applicable	
10	Details of order copy (duly mentioned on bidder letter head)	
11	Order copies as a proof of quantity executed	
12	Details of Type Tests if applicable (duly mentioned on bidder letter head)	
13	All the relevant Type test certificates as per relevant IS/ IEC (CPRI/ ERDA/ other certified agency) if applicable	
14	Project/ Supply Completion certificates	
15	Performance certificates	
16	Client Testimonial/ Performance Certificates	
17	Credit rating/ Solvency certificate	
18	Undertaking regarding non blacklisting (On company letter head)	
19	List of trained/ Untrained Manpower	

**Annexure VI**

**Acceptance Form for Participation In Reverse Auction Event**

*(To be signed and stamped by the bidder)*

In a bid to make our entire procurement process more fair and transparent, TPC intends to use the reverse auctions as an integral part of the entire tendering process. All the bidders who are found as technically qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

**The following terms and conditions are deemed as accepted by the bidder on participation in the bid event:**

1. TPC shall provide the user id and password to the authorized representative of the bidder. *(Authorization Letter in lieu of the same shall be submitted along with the signed and stamped Acceptance Form).*
2. TPC will make every effort to make the bid process transparent. However, the award decision by TPC would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of TPC, bid process, bid technology, bid documentation and bid details.
4. The bidder is advised to understand the auto bid process to safeguard themselves against any possibility of non-participation in the auction event.
5. In case of bidding through Internet medium, bidders are further advised to ensure availability of the entire infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitch, internet response issues, software or hardware hangs, power failure or any other reason shall not be the responsibility of TPC.
6. In case of intranet medium, TPC shall provide the infrastructure to bidders. Further, TPC has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders to submit the bids to ensure fair & transparent competitive bidding. In case of an auction event is restarted, the best bid as already available in the system shall become the start price for the new auction.
7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out-rightly rejected by TPC.
8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at TPC site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
11. No requests for time extension of the auction event shall be considered by TPC.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all-inclusive prices offered during conclusion of the auction event for arriving at Contract amount.

**Signature & Seal of the Bidder**

**Annexure VII**

**Commercial Terms & Conditions attached separately**

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**ANNEXURE I SCHEDULE OF ITEMS / BILL OF QUANTITY**  
**(BOQ)**

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**General Civil Works in various areas under Rourkela Circle of WESCO Utility**

Sr. No.	Brief Item description	Unit	Qty	Rate	Amount
1	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	500		-
2	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, dewatering and depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	500		-
3	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>1.51 to 3.0</b> mtrs	M3	400		-
4	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, dewatering and depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>1.51 to 3.0</b> mtrs	M3	400		-
5	Providing cartage service and transporting, excavated soil, debris, bricks, concrete, scrapwood including loading and unloading and disposing off to dumping sites approved by statutory bodies outside premises including submission of relevant documents, as applicable outside the station premises. (Note. Payable measurement shall be dismantelled qty. (Voids to be deducted as applicable whenever heap / truck mesurements are taken))	M3	400		-
6	Excavation in all types of <b>hard rock with mechanical equipment rock breaker</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	25		-
7	Providing close timber shoring consisting of 25 mm thk. walling and struts of size 100x100 mm or any other suitable alternative to sides of excavation / trenches / pits etc. wherever necessary and as directed for depth from 0 to 1.50 Mtrs	M2	200		-
8	Providing close timber shoring consisting of 25 mm thk. walling and struts of size 100x100 mm or any other suitable alternative to sides of excavation / trenches / pits etc. wherever necessary and as directed for depth from 1.51 to 3.00 Mtrs	M2	200		-
9	Backfilling trenches in 225 mm thick layers consolidated to 150mm.with murrum / excavated material (available at site upto 100 mtr.) including compaction of backfill by watering and tamping with approved hand or mechanical tampers.	M3	105		-
10	<b>Backfilling</b> trenches in 225 mm thick layers consolidated to 150mm <b>with murrum procured externally</b> including compaction of backfill by watering and tamping with approved hand or mechanical tampers. (mode of measurement will be Pre & Post work levels.Voids to be deducted at 20% if on truck measurement))	M3	35		-
11	Providing and laying 225 or 300 mm thick <b>dry rubble soling</b> with approved quality stones including filling gaps with small chips ramming with hand rammer etc. complete.	M3	400		-
12	Providing and laying 225 or 300 mm thick <b>dry rubble soling</b> with approved quality stones including filling gaps with small chips ramming with hand rammer etc. complete.(Rubble will be supplied by Tata's free of cost / <b>using available rubble at site</b> )	M3	35		-
13	Providing and spreading <b>metal No.3 or 4</b> in trenches or for pathways (including all materials) in layers for all thicknesses from 75 mm thick onwards and consolidating the same with hand rammer, etc. complete.	M3	28		-
14	Spreading and laying <b>metal No.3 or 4</b> in trenches or for pathways (including all materials) in layers for all thicknesses from 75 mm thick onwards and consolidating the same with hand rammer, etc. complete by <b>using metal available at site</b> .	M3	35		-
15	<b>Demolishing Brick Wall</b> (Including Plaster) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	35		-
16	<b>Demolishing Plain Cement Concrete (PCC)</b> (Including Plaster, flooring, mortar bedding) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	35		-
18	<b>Demolishing Reinforced Cement Concrete (RCC)</b> (Including Plaster, flooring, mortar bedding,Cutting Reinforcement) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	30		-
19	<b>Demolishing / removing Plaster of various thickness</b> and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M2	150		-
20	<b>Demolishing Asphalt Surface of various thickness</b> and transporting debris within companies premises or as directed including providing tools, tackles and pneumatic equipment as directed	M3	30		-

21	<b>Demolishing Rubble Soling / Pitching upto 300 mm thickness</b> and transporting debris within companies premises or as directed including providing tools, tackles and pneumatic equipment as directed	M3	7		-
22	<b>Dismantling</b> and neatly stacking <b>structural steel</b> work of roof trusses, purlins, beams, columns, chequered plate floorings, treads, risers, stringers, bracings, runners, fencing posts etc. at all heights including providing all accesories complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include returning the dismantled members to owner's stores at division etc. complete as directed.	MT	35		-
23	<b>Dismanting</b> and stacking including removal of wooden or steel frame work,angle supports etc. complete as directed for <b>Doors / Windows / Ventilators.</b>	M2	35		-
24	<b>Dismantling</b> and removal of <b>chainlink fencing</b> including removal of angle posts & barbed wire and returning the dismantled members to owner's stores at division etc. complete as directed. including scaffolding as per safety standards etc. complete as directed.(Rate shall inclusive of providing necessary tools tackles , cutting set, welding set wherever required.)	M2	140		-
25	<b>Dismantling</b> and stacking <b>AC or CGI sheets</b> on roofs or partitions excluding removal of wooden or steel frame work, angle supports etc. complete. (Rate including returning AC sheets in usable condition to store) for AC or CGI Sheet in usable condition	M2	70		-
26	<b>Providing</b> all the materials including screws, bolts and fixing corrugated <b>A.C. Sheet, GI Sheet, Galvalume sheet</b> on partition, roof or any other place including cutting, screwing etc. complete at all elevations (Only Sheets shall be supplied by TATA's free of cost)	M2	300		-
27	Carefully breaking and removing old tiles in floor / dado / skirting including mortar bedding / plastering and carting away debris and stacking tiles pieces within Owner's premises as directed by Engineer. (Mosaic / Plain Cement Tiles, Glazed Tiles & Nonskid ceramic tiles etc.)	M2	100		-
28	Dismanting and stacking including removal of wooden or steel frame work,angle supports etc. complete as directed for <b>Doors / Windows / Ventilators.</b>	M2	500		-
29	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Raft / footings</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	50		-
30	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Pedestals, columns, walls</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	20		-
31	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Beams / slabs</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	10		-
32	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Raft / footings</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	50		-
33	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Pedestals, columns, walls</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	20		-
34	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Beams / slabs</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER .	M3	10		-

35	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Pardis / Fins</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER.	M3	3		-
36	Providing all the materials laying Indian Patent Stone flooring in M15 grade concrete, including finishing the surface & curing etc. complete as directed ... 37 mm thk with Aluminium strips in panels of 2 x 2 M (Cement Consumption 0.36 Bag/M2)	M2	35		-
37	Providing all the materials laying Indian Patent Stone flooring in M15 grade concrete, including finishing the surface & curing etc. complete as directed ... 50 mm thk with Aluminium strips in panels of 2 x 2 M(Cement Consumption 0.48 Bag/M2)	M2	35		-
38	Supplying, Providing and laying in position <b>plain cement concrete of grade M10 machine mixed, vibrated and placed to correct line and level in levelling course/fill under or around foundations pits, slabs on grade, sumps, soak pits</b> , etc. at any depth with 30 mm down graded coarse aggregates including curing, compacting, de-watering wherever necessary, providing marine plywood shuttering form work wherever required etc. complete. (Min cement content 210Kg/m3)	M3	20		-
39	Supplying, Providing and laying in position <b>plain cement concrete of grade M15 machine mixed, vibrated and placed to correct line and level in levelling course/fill under or around foundations pits, slabs on grade, sumps, soak pits</b> , etc. at any depth with 30 mm down graded coarse aggregates including curing, compacting, de-watering wherever necessary, providing marine plywood shuttering form work wherever required etc. complete. (Min cement content 300 Kg/m3)	M3	30		-
40	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 12.5 mm nominal size).	M3	8		-
41	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	M2	200		-
42	Providing and fixing precast reinforced concrete cable trench covers, drain covers, fencing post, etc of class M25 concrete w/c 0.5 (max) leaving cutouts/ pockets, placing of inserts/ embedments, etc., complete all as per drawing including shuttering, vibrating, machine mixing, providing lifting arrangements, placing inserts curing handling, transporting, etc. complete but excluding the cost of providing reinforcement, inserts / embedments,with 30 mm downgraded aggregates. (Cement consumption 7.9 Bag/M3)	M3	4		-
43	Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding <b>reinforcement steel</b> for all types of RCC / Precast work irrespective of locations & levels all as per drawings including steel scaffolding, handling and transporting from site stores, complete as directed by using High yield strength deformed bars conforming to IS 1786 - <b>HYSD Bars</b>	TO	7		-
44	Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding reinforcement steel for all types of RCC work irrespective of locations & levels all as per drawings including handling and transporting from site stores complete as directed y using Mild Steel bars conforming to IS 432 - M S Bars / rods	MT	2		-
45	Providing all material and constructing brick masonry 230mm. thick and above in cement mortar (1:5) using approved quality, class 50 conforming to IS:3102 table moulded bricks, including leaving inserts / pockets, steel scaffolding, curing, raking joints, etc.	M3	300		-
46	Providing all material and constructing brick masonry 115 mm. thick and in cement mortar (1:4) using approved quality, class 50 conforming to IS:3102 table moulded bricks, including leaving inserts / pockets, steel scaffolding, curing, raking joints, etc. Any reinforcement required to be placed shall be paid separately in reinforcement item of this BOQ.	M2	200		-
47	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand)	M3	250.00		-
48	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	M3	50.00		-
49	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	M2	200.00		-
50	Providing all materials and carrying out <b>sand faced plaster 25 mm thick in two layers</b> (first layer of 16 to 18 mm and second layer of 6 to 8 mm thickness ) and plastering external surfaces of concrete and brick work such as walls, columns, beams etc. with 1:4 cement mortar, including providing & erecting steel scaffolding, hacking of concrete surfaces, curing including bands, drip moulds, grooves, etc. complete with 2% Accoproof or approved waterproofing compound	M2	500		-
51	Providing all materials and carrying out <b>sand faced plaster 18 mm thick in sigle layer</b> and plastering external surfaces of concrete and brick work such as walls, columns, beams etc. with 1:4 cement mortar, including providing & erecting steel scaffolding, hacking of concrete surfaces, curing including bands, drip moulds, grooves, etc. complete with 2% Accoproof or approved waterproofing compound	M2			-
52	Providing and <b>plastering internal surfaces</b> of concrete and brick work such as walls, ceilings, columns, beams, etc. with cement mortar 1:4 mix <b>finish smooth with 1:1 proportion cement &amp; slaked lime neeru / instant neeru</b> , including providing and erecting steel scaffolding, hacking concrete surface, providing bands, grooves drip moulds, curing, etc - <b>12 mm thk</b>	M2	105		-

53	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface to receive exterior quality paint , Applying a coat of approved Primer and Two Coats of Paint. Including necessary scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Exterior quality Plastic Emulsion paint</b>	M2	150		-
54	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface plain by applying putty, Applying a coat of approved Primer and Two Coats of Paint. Including necessary steel scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Synthetic Enamel Paint</b>	M2	150		-
55	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface plain by applying putty, Applying a coat of approved Primer and Two Coats of Paint. Including necessary steel scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Internal quality Plastic Emulsion paint</b>	M2	140		-
56	Providing all materials, tools tackles and labour, preparing the surface by scrapping / wire brushing to remove loose scales, Applying 3 coats of <b>White Wash</b> of approved Shade & Manufacturer, including necessary steel scaffolding / staging etc. complete as directed.	M2	140		-
57	Providing all materials roughening the surface and carrying out <b>waterproofing treatment to roof with brickbat coba</b> with well burnt half to three quarter bricks laid on edge diagonally, grouted with 1:3 CM with water proofing compound 5% by weight of cement of average thickness 125 mm including 50 mm thk IPS M15 grade including surfaces up to 300 mm above the finished surface on side walls( Measurements shall be based on net plan area only). Work to be guarantted for minimum 7 years	M2	70		-
58	Providing and constructing <b>112mm thick brick masonry Partition Walls in CM 1:4</b> including, scaffolding, curing, racking of joints for plastering or pointing, including transomes and mullions complete at all heights as per specification and as directed. (Reinforcement will be measured and paid for separately.)	M2	7		-
59	Providing and constructing <b>uncoursed rubble masonry in CM 1:5</b> including leaving inserts / pockets, steel scaffolding, curing, raking out joints for plastering / pointing complete for 0 to 4.00 Mtrs. High (Cement consumption 2.26 bag/M3)	M3	35		-
60	Providing all your tools and tackles and rendering services of Electrician / Carpenter / Plumber along with helper and consumables for minor repairs i/c providing washers, thread, m seal, screws, nails, fevicol, fuse wire, insulation tape and T & P as per requirement at site complete as per requirement of Owner.(The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	Day	90.00		-
61	Providing and fixing GI chicken wire mesh on concrete and masonry joints using nails, T&P etc. as per direction of the EIC complete.	M2	50.00		-
62	Making round opening in wall for exhaust fan upto 450 mm including making good the wall, jamps with cement mortar 1:4 (1 cement : 4 coarse sand) and finishing complete.	EA	10.00		-
63	Providing all the materials and carrying out <b>raised or flush cement pointing</b> in 1:3 cement mortar including providing and erecting steel scaffolding, curing, etc. complete <b>to rubble masonry / rubble pitching</b>	M2	35		-
64	Providing all the materials and equipments, fixing <b>marble mosaic tiles</b> of approved make such as BHARAT / NITCO / SIMPLEX or equivalent in floors and including cleaning the base laying 25 mm thick bedding mortar of one part of cement two parts of lime and six parts of sand, floating tiles in cement slurry at 5 Kg / M2, polishing with machine including washing with oxalic acid as directed, Neutral Shade tiles floated in Grey Cement.	M2	30		-
65	Providing and fixing <b>25mm thick Kotah Stone flooring</b> (machine cut and machine polished) with necessary cement mortar bedding, floating with matching colour cement, curing, machine polishing, cleaning etc. complete.	M2	25		-
66	Providing and fixing <b>35mm thick machine cut machine polished black kaddappa stone</b> of any sizes for counter / cooking platform with necessary cement mortar bedding and floating with matching colour cement, curing, polishing, cleaning etc or cutting grooves in walls & redoing in CM (1:3) complete.	M2	20		-
67	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels Granite of any colour and shade. Area of slab over 0.50 sqm.	M2	20		-
68	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels. a) Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble. Area of slab over 0.50 sqm.	M2	20		-
69	Providing half round edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Marble work	M	10		-
70	Providing half round edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work	M	10		-

71	Providing and fixing first quality <b>non-skid ceramic tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:5 bedding of average thickness 40mm , floated with matching cement etc. complete of size (300mm X 300mm). Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	30		-
72	Providing and fixing first quality ceramic <b>glazed tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:5 bedding of average thickness 40mm , floated with matching cement etc. complete of all sizes. Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	50		-
73	Providing and fixing first quality <b>Coloured glazed tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:4 bedding upto 40mm , floated with matching cement etc. complete of all sizes upto 300 x 600. Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	20		-
74	Providing and fixing first quality ceramic <b>vitrified tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor laid to line and level on cement mortar 1:4 bedding upto 75mm , floated with matching cement etc. complete of size 600 x 600.	M2	50		-
75	Rubbing and grinding of existing terrazo/mosaic flooring i/c polishing to the desired finish complete at all floor levels	M2	500.00		-
76	<b>Fabricating and erecting structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts, and washers and applying one coat of Shalimar or any other approved make red oxide (primer) paint to all the exposed surfaces of steel. <b>Only structural Steel to be provided by Owner at the nearest store</b>	TO	80		-
77	<b>Providing steel and supplying all material, fabricating and erecting structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as per the approved drawing or as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts, and washers and applying one coat of Shalimar or any other approved make red oxide (primer) paint to all the exposed surfaces of steel. Structural steel section shall be of primary manufacturer and confirm to IS2062 requirements	TO	80		-
78	<b>Providing steel and supplying all material, fabricating and erecting galvanized structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as per the approved drawing or as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of GI bolts, and nuts, and washers. Structural steel section shall be of primary manufacturer and confirm to IS2062 requirements & GI coating shall confirm to IS2629 (1985) & 4759 (1996) .#contractor shall submit the test certificate of GI coating thickness. Thickness should be 80 Microns HOT Dip.	TO	10		-
79	Providing steel and Supplying all material for Fabricating and erecting all types of steel work including welding, gas cutting, grinding, drilling of holes, or other lifting arrangements etc. Contractor shall use his own welding set, gas cutting set, gas, approved quality of welding electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts , and washers and applying coats of Zinc primer to all the exposed surfaces of steel. <b>For MS Chequered plates.</b>	MT	15		-
80	Providing, fabricating and erecting <b>6 / 8 / 10 mm thick aluminum Chequered plate</b> for platform, flooring, treads, risers, stringers, bracings, runners etc. at all heights including straightening, cutting, grinding, drilling of holes or other lifting arrangements, etc. complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of bolts, and nuts' washers and other fixtures etc. complete.	MT	5		-

81	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete. 75 mm overall thickness partition with 12.5 mm thick double skin fire rated Glass Reinforced Gypsum (GRG) board conforming to IS: 2095: (part 3) : 1996 (Board with BIS certification marks)	M2	20.00		-
82	Providing all your equipment, tools and tackles and rendering services including consumables for welding of various steel works viz doors, windows, gates, partitions,grills etc., including hiring charges of welding machine with welder & helper, carriage etc complete in all respect. (The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	day	30		-
83	Providing and fixing powder coated aluminum Partition part panelled and partly glass 8mm thick Main frame shall be made out of Hollow extruded sections of size 100mm x 75mm x 14 gauge.	M2	35		-
84	Providing and fixing powder coated aluminum doors part panelled and part louvered or glass 8mm thick ( for all sizes ) Main frame shall be made out of Hollow extruded sections of size 100mm x 75mm x 14 gauge. The louvers shall be made of 5.5mm thick wire glass slided inside suitable aluminum 14 gauges channels fixed to main frame by 2 nos. 4 mm aluminum rivets fixed at 45 deg etc. complete.	M2	25		-
85	Making pockets in Brick Masonry / PCC / RCC at all levels on the vertical and horizontal faces with necessary staging as required to fix anchor bolts / inserts (Supplied by Tata free of cost) and Grouting the pockets with 1:1 cement mortar after placing the bolts / inserts and finishing the surface either smooth or sand faced as required upto 200 mm square & depth upto 300mm	NO	20		-
86	Providing and fixing CI rain water pipes conforming to ISI with bends clamps etc., as directed.				-
87	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 100mm Dia.	M	35		-
88	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 150mm Dia.	M	35		-
89	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 200mm Dia.	M	35		-
90	Providing all the materials & fixing corrugated GI Sheet 16 guage including GI screws, GI bolts, bitumen washers on partition, roof or any other place including cutting, screwing etc. complete at all level including scaffolding.	M2	250		-
91	Providing , stretching and fixing chain link fencing 2" square and of gauge 10 (bare metal thickness) on angle posts with heavy duty GI split pins etc. in position complete as directed at all Heights including steel scaffolding.	M2	3000		-
92	Stretching and fixing chain link fencing 2" square and of gauge 10 (bare metal thickness) on angle posts with heavy duty GI split pins etc. in position complete as directed at all Heights including steel scaffolding. (Only Chain link shall be supplied by the Owner).	M2	200		-
93	Providing and fixing reinforced barbed wire tape (RBT) (2.6mm) thick single wire along the boudary wall / fencing on angle iron post with all necessary fitting such as welding of nuts, bolts, clips, split pins, TSP & such etc.complete	M	2000		-
94	Providing and fixing G I barbed wire of 10 guage along the boudary wall / fencing on angle iron post with all necessary fitting such as welding of nuts, bolts, clips, split pins, manpower etc.complete	M	1000		-
95	Providing and fixing concertina coil of 610 mm dia., 80 Nos. of circles, 200 Nos. of clips, hot dip galvanized. The wire shall be of 12 SWG tensile wire, covering 10 RM with one coil, each RM will have 8 Nos. of circles, including labour, fixing in position on existing V shaped angles including 2 nos. of guard wires and painting with 2 coats of Bus green paint complete at all heights including scaffolding.	M	500		-
96	Providing & fixing Broken glass pieces over coping on compound walls including providing ladders, scaffolding etc. complete as directed Ave. width 300 MM	M2	500		-
97	Hiring JCB with operator & helper including fuel and carrying out the work as directed by Owner's site manager.	shift	30		-
98	Hiring Poclain with operator & helper including fuel and carrying out the work as directed by Owner's site manager.	Shift	10		-
99	Providing ,Cutting and fixing HDPE pipe inserts 140 mm dia	M	35		-
100	Providing ,Cutting and fixing HDPE pipe inserts 200 mm dia	M	35		-

101	Supplying, fabricating and erecting Tubular Hand railing of 32 mm dia. NB medium class, SS pipes 304 mat finish /brush steel finish consisting of one SS rail and connecting with wall with all necessary SS bends, SS tee joints, SS fixtures, SS fittings, anchor bolts 6 mm dia and embedded in wall, etc. The assembly should be sturdy and with smooth surfaces at joints/ junctions. All SS sections, pipes etc. to be supported with documents for the quality and only SS sections and accessories shall be paid under this item	MT	1		-
102	S S Railing Supplying, fabricating and erecting Tubular Hand railing of 32 mm dia. NB medium class, SS pipes 304 mat finish/brush steel finish consisting of double ss rail with top ss rail 1 Mtr above floor level, middle rail at center and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary ss bends, ss tee joints, ss fixtures, ss fittings, anchor bolts including 6mm thick and embedded in ground, 75mm high toe guard at bottom etc.	M	100		-
103	Supplying, fabricating and erecting C class GI Tubular Hand railing of 32 mm dia. NB light class, consisting of double GI rail with top GI rail 1 Mtr above floor level and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary ss bends, GI tee joints, GI fixtures, GI fittings, anchor bolts including 6mm thick and embedded in ground, 75mm high toe guard at bottom etc. including connecting one coat of primer and two finish coats of synthetic enamel as directed. Note: Material to be provided by the contractor."	M	200		-
104	Supplying, fabricating & erecting Tubular Handrailing of 32 mm dia. N B, medium class, M S Pipes conforming to IS - 1239 of flush weld constructions & consisting of double rail with top rail 1 Mtr above floor level , middle rail at center and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary bends, tee joints, fixtures fittings, 75mm high toe guard 6mm thick at bottom, anchor bolts etc. including 1 shop coat of Shalimar or approved make red oxide primer paint conforming to IS 2074 and second coat of primer after completion of erection followed by two coats of finishing paints of approved make, colours and confirming to IS 2239 etc. complete as directed.	m	100		-
105	Providing and fixing powder coated MS wire mesh( 22 gauge) with aluminum frame etc. complete	M2	18		-
106	Providing and fixing powder coated SS wire mesh with aluminum frame etc. complete	M2	18		-
107	Providing and fixing powder coated GI mesh( 22 gauge) with aluminum frame etc. complete	M2	18		-
108	Providing & fixing Aluminium louvered POWDER COATED windows(fixed) conforming IS:1868. Main frame shall be made out of Hollow extruded sections of size 100 mm x 75 mm x 14 gauge. The louvers shall be made of 5.5 mm thick wired glass slid inside suitable aluminium 14 gauge channels fixed to main frame by 2 nos. 4 mm aluminium rivets fixed at 45 Deg.etc. complete.	M2	18		-
109	Providing, Fabricating and erecting MS gates consisting of MS angles framework (internal & external) using ISA 65x65x6 or 75x75x6 with 6mm to 8mm thk. MS joining plates, including chain-link stretched (8 gauge) tack welded over the framework with necessary hinges, locking arrangement including applying synthetic enamel paint of approved make over one coat of primer. Contractor shall use his own welding set, gas cutting set, gas, electrodes and other accessories required to complete the entire job. Rate is inclusive of all materials to be procured by the contractor.	M2	30		-
110	Providing, Fabricating and erecting MS gates consisting of MS hollow rectangular or square box sections with 6mm to 8mm thk. MS joining plates, including welding of sections as per design approved by the Owner. Fabricating the framework with necessary hinges, locking arrangement including applying synthetic enamel paint of approved make over one coat of primer. Contractor shall use his own welding set, gas cutting set, gas, electrodes and other accessories, steel scaffolding required to complete the entire job. All hollow box steel section shall be of primary manufacturer and confirm to IS 4923 requirements	MT	2		-
111	Steel work in built up tubular trusses including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete. Hot finished welded type tubes.	KG	1000		-
112	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 120 mm	EA	100		-
113	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 160 mm	EA	100		-
114	Dismantling / cutting and stacking Rolling Shutters with / without Wicket Gates including removal of angle supports etc, as directed.	M2	20		-
115	Supplying and fixing mechanical gear type rolling shutters, manually operated by means of winding handle and the shutter made out of 18 gauge x 3" (1.10 mm to 1.25 mm) mild steel laths of convex corrugation, complete with build up 4" x 1" side guides, built up bottom rails with angle iron at bottom and flat iron at top, heavy brackets, extra strong door, suspension shaft made out of new pipes leaded with high tension steel springs of best Indian spring steel wire, locking arrangements handles, painted with one coat of primer paint complete in best workmanship with top cover 3 Nos. bearing and including loading, unloading and transportation at our site.	M2	100		-
116	Supplying and fixinghand operated type rolling shutters, manually operated by means of winding handle and the shutter made out of 18 gauge x 3" (1.10 mm to 1.25 mm) mild steel laths of convex corrugation, complete with build up 4" x 1" side guides, built up bottom rails with angle iron at bottom and flat iron at top, heavy brackets, extra strong door, suspension shaft made out of new pipes leaded with high tension steel springs of best Indian spring steel wire, locking arrangements handles, painted with one coat of primer paint complete in best workmanship with top cover 3 Nos. bearing and including loading, unloading and transportation at our site.	M2	100		-
117	Providing all the materials and fixing Aluminum coated Name board of size 2.5mx1.2m (approx.) with stainless steel letters of 10" x 3" size with company's logo.	NO	6		-

118	Supplying & fixing in position anchor bolts with washers & nuts of required shape & size 6mm to 30mm dia. With necessary thread length including fixing templates etc. (Templates will not be paid for).	kg	200		-
119	Supplying and placing in position Mechanical Anchor fasteners 16 mm dia, 140 mm long including drilling the holes .(HST,HILTI make).	NO	140		-
120	Supplying and placing in position Mechanical Anchor fasteners 12mm dia. 140mm including drilling the holes .(HST,HILTI make).	NO	70		-
121	Providing and fixing single or double shuttered fully panelled POWDER COATED doors conforming to IS:1868. Main frame shall be made out of aluminum tubes of size 100mm x 45mm x 14 gauge. The shutters shall consist of 45mm x 45mm x 14 gauge top rail and styles, 95mm x 45mm x 14 gauge bottom rail and panelled with Marine plywood sandwiched between 18 gauge Aluminum sheet on both sides including necessary locking arrangement, handles on one or both the shutters, weather strip, floor springs for one or both shutters, tower bolts for one shutter etc. with pivots for each shutter including fixing necessary "PUSH PULL" signs, with rubber woolen felt sealing etc. complete. Aluminium sections to be of Jindal / Indal make	M2	35		-
122	Providing and fixing fully glazed sliding POWDER COATED aluminum windows. Outer frame shall be of size 100 mm x 45 mm x (14 gauge) anodized section of min. weight 6 Kg / 12' length. The 3 track Box Section (20 mm Series) Indal / Jindal shall consist of a) Bottom rail size 90 mm x 45 mm (14 gauge) of min. weight 5.5 Kg / 12' length. b) Sides and top rail 90 mm x 32 mm (15 gauge) of min. weight 3 Kg / 12' length. Glass shall be 6mm thick. rubber woolen felt sealing etc. complete.	M2	35		-
123	Providing and fixing CP jet spray size 12mm dia. of approved make with ISI mark	NO	20		-
124	Providing and fixing Basin mirror of size 600mmx600mm of approved make and colour including all material, tools, tackles complete	NO	20		-
125	Providing and fixing 100 x 80mm CI deep seal Nahani Trap of insect proof type with CP heavy grating and frame	EA	15		-
126	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 12mm Dia.	M	70		-
127	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 19mm Dia.	M	70		-
128	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 25mm Dia.	M	70		-
129	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 38mm Dia.	M	70		-
130	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 50mm Dia.	M	70		-
131	Providing and fixing 100 x 80mm PVC deep seal Nahani Trap of insect proof type with PVC heavy grating and frame as directed	No	7		-
132	Providing and fixing water closet squatting pan (Indian type W.C. pan ) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required : White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests (HINDUSTAN/Parryware MAKE)	EA	7		-
133	Providing and fixing white vitreous china pedestal type European water closet (Hindware make:Constellation set white) with seat & lid,10 litres flushing cistern & manually controlled device conforming to the IS-7231 with all fittings & fixtures complete including cutting and making good the walls and floors wherever required.WC pan with ISI marked white sloid plastic seat & lid heavy duty (HINDUSTAN/Parryware MAKE)	EA	50		-
134	Providing lip type urinal and flushing valve and bottle trap, lead and GI pipe connections overflow outlet pipes with mosquito proof cover including providing all the materials. etc. complete. (HINDUSTAN/Parryware MAKE)	EA	70		-
135	Providing and fixing stone ware gully traps of 9"x9" size as directed.	EA	70		-
136	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 12mm Dia.	EA	70		-
137	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 19mm Dia.	EA	70		-
138	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 25mm Dia.	EA	70		-
139	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 50mm Dia.	EA	70		-
140	Providing & Laying salt glazed stoneware pipes including providing all the materials and cement jointing but excluding excavation and backfilling including 50mm thk.M100 bedding below joints for 150mm Dia.	Rm	70		-
141	Removing, providing & replacing the broken manhole covers heavy duty CI, ISI marked with frame including finishing the top masonry with cement mortar as directed 225mm X 300mm Manhole covers should be of munal corporation approved.	EA	70		-
142	Removing, providing & replacing the broken manhole covers heavy duty CI, ISI marked with frame including finishing the top masonry with cement mortar as directed 900mm X 600mm - Manhole covers should be of munal corporation approved	NO	70		-
143	Removing , providing & fixing white glazed wash basin flatback confirming to IS 2556 (Part IV) of approved make including providing wash basin, C.I brackets, fixed to the wall with rawl plug bolts & screws and painted in two coats of white zinc paint over a coat of red oxide primer,with 15mm C.P. pillar tap as per IS 1795 (1 No.) of approved make, plug & C.P chain, 50mm dia. mosquito proof gratings, 32mm dia. C.P. waste pipe, brass stop cock as per IS 781 of bottle trap with C.P pipe pieces upto wall or floor level plus 40mm lead, waste pipe embedded floor from 32mm CP waste extension pipe to the CI waste shaft on the outside wall, complete with brass union and plumbers wiped soldered joints as directed with necessary cleaning eyes including cutting holes and chasses in the wall and making good the same in CM (1:4) etc. complete as directed. (Hindustan/ Parryware make .) Size 580mm X 450mm	EA	70		-

144	Providing and fixing 31 mm dia heavy duty CP Bottle trap matching with the existing if any	EA	70		-
145	Providing and fixing heavy dutyC P Flush valve for flat back Urinals complete matching with existing if any.	EA	70		-
146	Providing and fixing ceramic white sink including all connections, brackets,wast cupling, 32mm PVC pipe complete as directed. (Hindustan or Cera) Size 0.45m X 0.6m	EA	70		-
147	Supplying and fixing Stainless steel sink made out of best quality Stainless steel sheet of 16 guage conforming to IS 5522 having 1 1/4 " hole for drain pipe at centre of bottom plate with Stainless steel basket stainer 1 1/4 ", brass waist coupling , 1 1/2 " moulding all around and as directed for sizes 0.610 M x 0.460 M. Nirali or equivalent approved make.	EA	70		-
148	Providing and fixing PVC seat cover to European WC matching with the existing if any	EA	70		-
149	Providing and fixing heavy duty CP pillar cock - Pressmatic type to wash basin size 15mm of approved ISI make as directed.	No	70		-
150	Providing and fixing heavy duty CP Jali for nahni trap as directed of size 100mm dia.	EA	70		-
151	Providing and fixing 100mm dia CP shower with 300mm long arm .	EA	70		-
152	Providing and fixing heavy duty CP concealed <b>bib cock</b> size 12mm dia. of approved make with ISI mark as directed.	EA	70		-
153	Providing and fixing heavy duty CP concealed <b>Angle cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	70		-
154	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 12mm dia. of approved make with ISI mark as directed.	EA	70		-
155	Providing and fixing heavy duty PVC soap dispenser of standard size .	EA	70		-
156	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 20mm dia. of approved make with ISI mark as directed.	No	70		-
157	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 50mm dia. of approved make with ISI mark as directed.	No	70		-
158	Removing / dismantling old corroded GI pipe line size 12mm to 50mm dia. Work includes transportation to company store etc.	M	84		-
159	Providing all materials, services, tools, tackles, equipment, transport etc. for carrying out misc. plumbing repair works and Replacing float valve of flush tank size 12.5 mm dia.	EA	20		-
160	Providing and installation heavy duty jet spray including PVC Connector of approved make with ISI mark as directed.	EA	20		-
161	Providing and fixing heavy duty PVC high level / low level flush tank of standard size including all necessary fitting and fixtures of approved make with ISI mark as directed.	EA	20		-
162	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 12 mm dia.	No	20		-
163	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 19 mm dia.	No	20		-
164	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 25 mm dia.	No	20		-
165	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 39 mm dia.	No	20		-
166	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 50 mm dia.	No	20		-
167	Providing and fixing of PVC pipe for down take for 100 mm dia.	RM	35		-
168	Providing and fixing of PVC pipe for down take for 150 mm dia.	RM	35		-
169	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 12 mm dia	M	175		-
170	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 19 mm dia	M	175		-
171	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 25 mm dia	M	175		-
172	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 32 mm dia	M	175		-
173	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 38 mm dia	M	175		-
174	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 50 mm dia	M	175		-
175	Providing all tools & services for removing, rerouting and Refixing existing GI pipeline of 12 to 25 mm dia including all fittings required for the same.	M	70		-
176	Providing all tools & services for removing, rerouting and Refixing existing GI pipeline of 31 to 50 mm dia including all fittings required for the same.	M	70		-
177	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 12 mm dia	M	10		-

178	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 19 mm dia	M	10		-
179	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 25 mm dia	M	10		-
180	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 32 mm dia	M	10		-
181	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 40 mm dia	M	10		-
182	Providing and fixing of two way bib cock sicko, including all tools & tackles	No	10.00		-
183	Providing and fixing heavy duty CP concealed two way <b>bib cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	5.00		-
184	Providing and fixing heavy duty CP concealed two way <b>Angle cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	30.00		-
185	Providing and fixing heavy duty CP concealed two way <b>stop cock</b> size 12mm dia. of approved make with ISI mark as directed.	NO	30.00		-
186		NO	30.00		-
187	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	Litre	20000		-
188	Making chases upto 50 mm x 50mm in walls including making good and finishing with matching surface after housing G.I. Pipe etc.	M	500		-
189	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm) with necessary accessories and screws etc. complete. This item will cover a performance guarantee of 1 year, during this Guarantee period if any malfunctioning is observed the same shall be attended by the vendor within 2 day	EA	30		-
190	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete. This item will cover a performance guarantee of 1 year, during this Guarantee period if any malfunctioning is observed the same shall be attended by the vendor within 2 day	EA	30		-
191	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	Ea	50		-
192	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete. Size 50 mm	Ea	50		-
193	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately). Second class teak wood	M3	10		-
194	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (Only area of glass vision panel made in door shutter will be measured) : Rectangular or square	M2	20		-
195	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to steel windows by welding.	Kg	1000		-
196	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance $\pm 1$ mm), with wall thickness 2.0 mm ( $\pm 0.2$ mm), Extruded section profile size 48x40 mm with corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm ( $\pm 0.1$ mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame, Providing and fixing to existing door frames. 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm 0.3$ mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm 0.1$ mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification including necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places , complete as per manufacturer's specification and direction of Engineerin-charge.	M2	30		-
197	Providing and fixing stainless steel tower bolts with necessary screws etc. complete. 150 mm on existing door	EA	20		-
198	Providing and fixing stainless steel tower bolts with necessary screws etc. complete. 200 mm on existing door	EA	20		-
199	Providing and fixing stainless steel sliding door bolt with necessary screws etc. complete. 200 mm on existing door	EA	20		-
200	Providing & fixing stainless steel Door stopper with necessary screws etc. complete. Twin rubber stopper. on existing door	EA	20		-
201	Providing and fixing stainless steel door handel with necessary screws etc. complete 150 mm on existing door	EA	20		-
202	Providing and fixing stainless steel door handel with necessary screws etc. complete 150 mm on existing door	EA	20		-

203	Replacing broken window glasses (6 mm thk.) including fixing pins, weather bar and putties of approved quality (including scaffolding if required ) etc. complete.	M2	45		-
204	Providing and fixing 35 to 38 mm thick commercial flush door shutter with 1.5 mm thick laminate on both side of approved make and shade. Rate shall also include provision of 10 mm thick teak wood beading around the shutter, making it of appropriate size of existing door shutter, all the locking accessories, aldrops on both sides heavy duty brass hinges, heavy duty door closer hyper make sleek model, heavy duty 5" brass handles polishing or painting complete as directed. shutters to be fixed in existing frames.	M2	20		-
205	Providing and fixing 50 mm thick commercial flush door shutter with 1.5 mm thick laminate on both side of approved make and shade. Rate shall also include provision of 10 mm thick teak wood beading around the shutter, making it of appropriate size of existing door shutter, all the locking accessories, aldrops on both sides heavy duty brass hinges, heavy duty door closer hyper make sleek model, heavy duty 5" brass handles polishing or painting complete as directed. shutters to be fixed in existing frames.	M2	20		-
206	Providing, Erecting and Fixing Aluminum POWDER COATED fixed windows conforming to IS:1868. Main frame Shall be made out of hollow extruded sections of size 100mm*75mm*14mm gauge and panelled with 50 mm x 45 mm x 14 gauge top and bottom rails and styles, approved 5.5mm thick clear or opaque glass. All aluminum sections will be finished with anti corrosive rust proof powder coating of approved quality and shade all as per IS codes or as directed.The rate shall be include of filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly.	M2	35		-
207	Providing and Fixing Grid False Ceiling as per specificatiProviding and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. a) with Dune 600x600x16 RH-99 tiles (Tegular Edge./Board edge/Microlook Edge.) of Armstrong make. The rates shall be inclusive for making of opening for electrical fittings and AC blower and return air with appropriate supporting members. Only plan area will be payable. No deduction shall be made for opening left for AC blower and electric fittings and no payment shall be made for for providing additional supports around openings..	M2	35		-
208	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long , G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with: a) 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I.	M2	50.00		-
209	Repair to existing Gypsum board false ceiling with 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete but excluding the cost of painting as per direction of E-I-C	M2	50.00		-
210	Providing and fixing Anti static false flooring with load bearing capacity of 1200 kg concentrated load and 2000 kg /sqm distributed load, of Unitile Everest or equivalent consisting of: Stringers made out of die pressed channels 25x25x25 mm with two die pressed notches at the two ends to snap fit to the jack head for 300 mm height	M2	50		-

211	Providing, Erecting and Fixing Aluminum Anodized fixed partition fully glazed confirming to IS:1868.Main frame Shall be made out of hollow extruded sections of size 100mm*75mm*14mm gauge and panelled with approved 5.5mm thick or opaque glass. All aluminum sections will be finished with anti corrosive rust proof coating of approved quality and shade all as per IS codes or as directed. The rate shall be include of filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly as directed (Heavy duty sections)	M2	14		-
212	Providing & fixing upto 12 mm dia, 100 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
213	Providing & fixing upto 12 mm dia, 140 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
214	Providing & fixing upto 16 mm dia, 100 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
215	Providing & fixing upto 16 mm dia, 140 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
216	Making chases in walls for replacing, repairing GI conduits at all levels on vertical and horizontal faces with necessary staging to conceal GI conduits including finishing back the surface either smooth or sand faced over Brick masonry, PCC, RCC ( laying of conduit by other agency Size upto 100mm x 75 mm)	M	35		-
217	Providing, placing and fixing <b>profile pre-color coated galvalume RMP sheets or equivalent of 0.5mm</b> total coated thickness to match existing shade (bare galvalume thickness 0.47mm), <b>trough type</b> , zinc aluminum alloy coated (zinc aluminum coating not less then 150g/sqm ), MS high tensile sheet having minimum yield strength of 550MPa including coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting and DFT 5 microns over 5 micron primer on internal surface of sheeting and including all connections and matching fixtures and accessories such as but not limited to J or L bolts & hooks (8 mm, polymer coated), nuts with polymer washers, self tapping screws, protective polymer cap of matching color for bolts, should be supplied in suitable length as desired by Engineer in- charge. The sheet shall be fixed using self drilling /self tapping GI coated screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, etc., complete as per manufacturers recommendations for Sheeting for roof/Side etc.	M2	5000		-
218	Providing, placing and fixing <b>plain pre-color coated galvalume RMP sheets or equivalent of 0.5mm</b> total coated thickness to match existing shade (bare galvalume thickness 0.47mm), <b>plain sheet for flashing , ridges</b> , zinc aluminum alloy coated (zinc aluminum coating not less then 150g/sqm ), MS high tensile sheet having minimum yield strength of 550MPa including coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting and DFT 5 microns over 5 micron primer on internal surface of sheeting and including all connections and matching fixtures and accessories such as but not limited to J or L bolts & hooks (8 mm, polymer coated), nuts with polymer washers, self tapping screws, protective polymer cap of matching color for bolts, should be supplied in suitable length as desired by Engineer in-charge. The sheet shall be fixed using self drilling /self tapping GI coated screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, etc., complete as per manufacturers recommendations for Sheeting for roof/Side etc.				-
219	<b>P/F of corrugated GI Sheets</b> Providing & fixing 16 gauge corrugated GI sheet on roof & cladding with GI bolts, nuts, washers, sealant on bolt etc.	M2	100		-
220	<b>FRP Sheets</b> Providing & fixing new & approved quality <b>corrugated</b> FRP sheets of green colour, thickness 3 mm with new GI bolts, nuts, washers etc.	M2	100		-
221	Providing and fixing fully glazed sliding POWDER COATED windows. Outer frame shall be of size 100 mm x 45 mm x (14 gauge) anodised INDAL section of min. weight 6 Kg / 12' length. The 3 track Box Section (20 mm Series) Indal shall consist of a) Bottom rail size 90 mm x 45 mm (14 gauge) of min. weight 5.5 Kg / 12' length. b) Sides and top rail 90 mm x 32 mm (15 gauge) of min. weight 3 Kg / 12' length, and panelled with approved 5.5mm thick clear or opaque glass. including civil works for filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly.	M2	100		-
222	Providing all materials, tools, service etc. including providing and erecting scaffolding at all heights and carrying out Plaster of Paris punning (average 6 mm thk.) to existing walls as well as newly plastered surfaces in perfect line and plumb to prepare them to receive Acrylic emulsion paint.( Walls and Ceiling ) (Internal surfaces) including necessary surface preparation if required	M2	350		-
223	Providing all materials ,tools, tackles such as wire brush, putty blade,sand paper etc. for removing all loosely adhering material from the internal surface of existing wall, ceiling , plastered surface etc. & ensuring substrate should be clean, free from dust, grease & loose material. Moisten the wall with sufficient quantity of clean water prior to application of 1st coat of Birla White Wallcare Putty or equivalent. Allow the 1st coat surface to dry for at least 3 hrs after that rub the surface gently with the putty blade in order to remove all loose particles. Apply 2nd coat of putty, allow the surface to dry for 10-12 hrs after that rub the surface gently with the putty blade in order to remove all loose particles. Total thickness of the coats should be limited to average 1.5 mm thk.This also includes carrying out the work in perfect line and plumb & prepare them to receive paint.	M2	350		-
224	Providing & laying hume pipe 150 mm Dia confirming to IS 458 (Class NP3) in line and level in required slope or as directed including providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), M 10 concrete below joints but excluding excavation .	M	50		-

225	Providing & laying hume pipe 300 mm Dia confirming to IS 458 (Class NP3) in line and level in required slope or as directed including providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), M 10 concrete below joints but excluding excavation .	M	50		-
226	"Providing all materials, tools, tackles & services for Rehabilitation of RCC Structures as following a.) Repair damaged concrete members including stripping dilapidated and loose concrete, scrapping reinforcement with wire brush and cleaning the same with speciality chemicals( Rusticide SS ) in one or more coats as per manufacturer's specifications. b.) Providing and applying speciality chemicals ( Polyalk Fixoprime ) in recommended proportions to steel bars & exposed concrete in one or more coats as per manufacturer's specifications. c.) Providing and applying speciality chemicals ( Polyalk EP ) in recommended proportions with 1:4 mortar with quartz sand in one or more coats for average thickness of 25 mm as per manufacturer's specifications etc complete as directed.	M2	18		-
227	<b>Protection of RCC Structures by Rehabilitation</b> a)Providing all necessary materials & services to repair damaged concrete members including stripping dilapidated and loose concrete, scrapping reinforcement with wire brush and cleaning the same with speciality chemicals (Rusticide SS) in one or more coats as per manufacturer's specifications. b.) Providing and applying specialty chemicals (Polyalk Fixoprime ) in recommended proportions to steel bars & exposed concrete in one or more coats as per manufacturer's specifications. c.) Providing and applying specialty chemicals (Polyalk EP) in recommended proportions with 1:4 mortar with quartz sand in one or more coats for average 50 mm thickness as per manufacturer's specifications"	M2	35		-
228	Providing and fixing C class GI water pipes, confirming to IS:1239, and galvanized as per IS-4736, in vertical or horizontal positions at all heights including cutting, treading, bending and jointing with necessary C(Heavy) class GI fittings, such as tees, bends, unions, elbows, reducers, couplings, sockets flanges, plug ends, check nuts, etc. cuttings holes, chases in the walls or floors and making good the same with CM 1:4 providing necessary GI malleable clamps and supports and testing the line as specified etc. complete (rate inclusive of fittings and special) 75 mm dia	M	50		-
229	Providing and fixing C class GI water pipes, confirming to IS:1239, and galvanized as per IS-4736, in vertical or horizontal positions at all heights including cutting, treading, bending and jointing with necessary C(Heavy) class GI fittings, such as tees, bends, unions, elbows, reducers, couplings, sockets flanges, plug ends, check nuts, etc. cuttings holes, chases in the walls or floors and making good the same with CM 1:4 providing necessary GI malleable clamps and supports and testing the line as specified etc. complete (rate inclusive of fittings and special) 100 mm dia	M	18		-
230	Supplying & laying of Siporex block for wall 230mm thick and above in cement mortar(1:4) including scaffolding at all heights, curing, raking joints, etc.	M3	7		-
231	Making core cuts in RCC wall/slab etc. up to 100mm to 350mm Thickness 250 mm dia	NO	10		-
232	Making core cuts in RCC wall/slab etc. up to 100mm to 350mm Thickness 150 mm dia	NO	10		-
233	Supplying, fabricating, transporting to site and erecting GI grating in position hot dip galvanized members / structures fabricated as per approved drawings including galvanizing the sections (Zinc coating minimum 80-100 micron DFT) / accessories as per specifications and touch up zinc paint after galvanizing in areas where needed / approved after erection.(Grating size 500shall be as per drawing.All gratings will be supplied by Agency. Agency shall use his own all the tool & tackles to complete the entire work, as per the direction of the site engineer. Agency must approve the sample of grating by TATA Power representative before manufacturing of all the gratings.	Ton	3		-
234	Carefully opening the cracks in plaster, cleaning the cracks with electrical air blower/water & filling the cracks with polymer modified cementitious mortar in proportion 1:5:15 ( i.e. Polymer: cement: well graded quartz sand by wt.) including polymer bonding coat & seal coat, curing etc. complete. Note: Width of cracks upto 6 mm and depth upto 20mm.	M	18		-
235	Providing material, labor & services for oiling and greasing of shutters. Rates are inclusive of providing steel scaffolding	No	21		-
236	Providing all material, cleaning the roof surface and carrying out 3mm thick membrane (approved make) water proofing treatment as under below 1) Filling the cracks, Holes etc., with Tar Plastic (Cold Water Proofing Compound) 2) Applying oil primer T-10 UNDER ENTIRE SURFACE (0.3 liters per sqm) 3) Applying 3 MM thk. approved make modified water proofing membrane by torch welding with 100mm*100mm side and end laps without airgases 4) Applying one coat of bituminous base silver shield paints over entire work of membrane Note : Contractor should give 5 years guarantee.	M2	14		-
237	Providing all tools, tackles & equipment's necessary for trimming of tree branches inclusive providing and maintaining scaffolding till trimming activity, provision of fall arresting jali, making access to branches, ladder, cutting tools, crane if required, etc. complete as per requirement of job and instructions of engineer in charge. The rate should be inclusive of trimming tree, collecting & stacking debris near site & dispose off the debris in approved ground. Statutory payment will be paid by the Owner against official demand notes received from statutory bodies.	No	250		-
238	Cleaning of septic tank , including chambers with gully sucker & providing plumbing services including all required tools, tackles, materials & fixtures including loading, unloading & transpotation up of sewerage to identified disposal site etc complete as directed,	No	14		-
239	Cleaning of choked sewage chambers by providing plumbing services including all required tools, tackles, materials & fixtures including loading, unloading & transpotation up of sewerage to identified disposal site etc complete as directed,	Ea	14		-
240	Making soak pit 2.5 m diaeter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diaeter, 1.8 m long complete as per standard design. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	5		-
241	Cleaning of O/H water storage tank up to 1000 ltrs. i/c cleaning with potassium permanganate / bleaing powder and finally with clear water complete.	EA	20		-

242	Providing all necessary material, tools, tackles & services for supplying & laying MS grating of sizes and of the design as per drawing approved by Owner,	MT	2		-
243	Providing & applying two coats of Elastomeric coating having 200-300% elongation over a coat of primer over properly prepared plaster surface including scrapping all loose material on existing plastered surface etc.	M2	100		-
244	Supplying, Providing and laying, un-coursed random rubble masonry in cement mortar 1:5 with approved local stones of good quality for walls / footings, etc. and as fill under foundations in true line and levels, including curing, de-watering wherever necessary, raking of joints etc. complete for work below ground/grade level at all depths and grade level up to plinth etc.,	M3	21		-
245		M2	35		-
246	Making khurras 45 x 45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x 1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete	EA	20		-
247	Providing and fixing interlocking concrete paver blocks of 80mm thk. of M40 grade. Concrete paver blocks shall be uniformly shaped (monolithic #single layer precast concrete blocks) of specified color and pattern as per technical specification, placed on avg. thickness of 50 mm uniformly graded river sand cushioning with proper compacting with mechanical compactor with the proper level, grade and camber etc. complete as directed. The side joints / Open ends should be filled / sealed by M-25 grade concrete as required etc. he testing of paver blocks shall be arranged by the contractor at the time of approval and during execution of job at their own cost.	M2	100		-
248	<b>Providing 60 feet long Man lifter upto 60 feet long for civil work including</b> providing services for civil work irrespective of height and location of the work complying with all safety rules and procedures of company practices followed in company complete as directed by the Owner	day	75		-
249	Providing services for removal of choke from sewage line using municipal gang with sucking machine	EA	50		-
250	Providing all your materials , tools tackles marking and painting of strip, width 75mm to 150 mm, for road / passage marking with synthetic enamel, brushe, solvent, tools and tackles, skilled painter for cleaning and preparing the surface by scrapping sand papering to remove loose scale, making the surface plain and marking the strip, painting two coat over a coat of primer in perfect strip and painting two coat in perfect alignment marking	M2	50		-
251	Providing all your materials , tools tackles marking and painting of speed breaker, zebra crossing, kerb stones, skilled painter for cleaning and preparing the surface by scrapping sand papering to remove loose scales, grease, making surface plain and marking the strips and painting in two coat of synthetic enamel paint over a coat of primer in perfect alignment	M2	20.00		-
252	Providing and fixing of roller blind for window, providing all equipment, material, tools, tackles etc. for fixing blinds for windows of approved make and shade etc.	M2	50		-
253	providing and fixing of blind, type: vertical, width: 75 mm, providing all equipment, material, tools, tackles etc. for fixing blinds of approved make and shade etc.	M2	50		-
254	Providing and fixing of sun control film of approved make like Garware or equivalent including providing all equipment, material, tools, tackles etc. for fixing sun film without any air bubbles / scratches.	M2	50		-
255	Providing and fixing fibre sheet of 3 mm thickness inclusive of all fastners, nuts, bolts etc and inclusive of labour complete	NO	10		-
256	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 100 m outside of periphery of the area cleared.	M2	7.00		-
257	Supplying, diluting and injecting chemical emulsion PRE CONSTRUCTIONAL ANTI- termite treatment and creating a continuous chemical barrier under and all around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surrounding of pipes and conduits etc. complete as per IS codes & specifications (plinth area of the building at ground floor only shall be measured for payment) a) Chlorphyriphos Emulsifiable concentrate 20% with 1% concentration Note : Contractor shall have to furnish from the specified agency carrying out the work under anti-termite treatment a written corporate guarantee on non-judicial stamp paper of Rupees 100 in favour of Owner for the satisfactory performance of the treatment for a period of ten years	M2	200.00		-
258	Supplying, diluting and injecting chemical emulsion POST CONSTRUCTIONAL ANTI-termite treatment creating a continuous chemical barrier i/c all the wood work, door frames, wooden cabinets, almiraahs, wall mounted cabinets, work stations, wooden partitions etc. (floor area of the building only shall be measured for payment) a) Chlorphyriphos Emulsifiable concentrate 20% with 1% concentration. Note : Contractor shall have to furnish from the specified agency carrying out the work under anti-termite treatment a written corporate guarantee on non-judicial stamp paper of Rupees 100 in favour of Owner for the satisfactory performance of the treatment for a period of ten years	M2	200.00		-
259	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ±1mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineerin-charge. Extruded section profile size 48x40 mm	M	35.00		-

260	Providing and fixing to existing door frames. 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm$ 0.3 mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm$ 0.1 mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places	M2	10.00		-
261	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 120 mm	EA	100.00		-
262	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 160 mm	EA	100.00		-
263	Providing and fixing IRC fabric (welded mesh) of size 35x75 mm of required guage to the frame of MS angles, channels, tees, flats etc. at all floor levels including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer as required. In frames, gates etc. (Cost of MS frame will be paid separately). Fixed to steel frames by welding.	Kg	5000.00		-
264	Providing and fixing stainless steel ( Grade 304) gate, grill, railing etc. made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, including fixing the gate with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose weight of stainless steel members shall be considered including fixing s.s. accessories such as nuts, bolts, fasteners etc.)	Kg	500.00		-
265	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. Single socketed pipes including all fittings, clamps, spacer etc.. 110 mm dia	M	50		-
266	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. a) single socketed pipes. including all fittings, clamps, spacer etc. 150 mm dia.	M	50		-
267	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long , G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with: a) 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I.	M2	50		-
268	Providing and fixing Vitreous china Urinal partition of standard design and required color, of Hindustan / Parryware or eq. make using screws etc complete	EA	10		-
269	Providing and fixing 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with CP brass screws and washers complete.	EA	10		-
270	Providing and fixing CP brass Jet and accessories to english type WC of approved quality and make complete.	EA	10		-
271	Providing and fixing CP brass bottle trap of approved quality.	EA	10		-
272	Providing and fixing low height opaque partition 54mm thick from floor to desired height (below false ceiling) consisting of 45x45mm 1st class kail wood frame work with a fire retardant paint applied on it forming frame work at 450-600 C/C nominal in both directions fixed rigidly in flooring and side support by screws/GI cleat etc. The frame work shall have one side 8/9mm thick commercial ply and gap in frame work filled with 45mm thick up tuiga mineral fibre wool with a density of 50 kg/M <sup>3</sup> , exterior sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kal wood runner and making provision for laying conduits switches box with 8 x 75 mm teak wood or laminated skirting, polishing etc complete.	M2	12.00		-

273	Providing and fixing suspended Gypsum board ceiling (straight, vertical & curved) consisting of fixing GI perimeter channels of 27mm x0.5mm thick having one flange of 20mm and another flange of 30mm along with perimeter of the ceiling, screws fixed to RCC/ Brick/foam block walls/ gypsum board partitions with the help of rawl plugs and screws. The suspending GI intermediate channels of size 45x0.55mm th. With two flanges of each from the soffit @1200mm centre with GI hangers of 25mm x 0.5mm thick Fixed to soffit with GI cleat and steel Expansion fasteners and to intermediate channel with GI nut and bolt. Ceiling section of 0.5mm thickness having knurled wedge of 51.5 mm and two flanges of 26mm each with lips of 10.5mm then fixed to the intermediate channel with the help of connecting clips and in direction perpendicular to the intermediate channel at 450mm centers, 12.5mm th. Tapered edge gypsum plaster board (confirming to IS 2095-1982) is then fixed with screws to ceiling section with 25mm dry screws at 230mm centers at the underside of ceiling section framing. Screws to be fixed mechanically either with screw driver or drilling machine with suitable attachment, providing angle beads and edging beads wherever necessary, finishing even appearance. P/f trap doors made of laminated boards with wooden frames, p/f wooden shadow battens (holloc wood, black enamel painted - 25x40mm) at wall peripheries and ends, extra frame work for fixing lights, making cutouts for electrical / HVAC / plumbing works etc. complete.	M2	12.00		-
274	Providing and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. a) with Dune 600x600x16 RH-99 tiles (Tegular Edge./Board edge/Microlook Edge.) of Armstrong make	M2	17.00		-
275	Providing and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. b) with Ultima 600x600x19 RH-95 tiles (Tegular Edge./Board edge/Microlook Edge) Of Armstrong make	M2	12.00		-
276	P/F full ht. in approved pattern opaque / partly glazed (with 5.5 mm thk.glass fixed with lnd class teak wood beading ) partition 63-65 mm thick from floor to false ceiling consisting of 45x45mm 1st class. kail wood frame work with a fire retardant paint applied on it forming frame work at 450-600 c/c in both directions fixed rigidly in flooring and ceiling by screws/GI cleat etc. The frame work shall have on both sides 9mm thick commercial ply and gap in between filled with 45mm thick UP tuiga mineral fibre wool of density 50 kg/M³, exteriors sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kail wood runner and making provision for laying conduits switches boxes with 8 x 75 mm teak wood or laminated skirting , polishing etc complete, as per instruction of Engineer in charge.. (Any frame work beyond partition height shall be paid extra)	M2	12.00		-
277	P/F full ht. in approved pattern 55 mm thick from floor to false ceiling consisting of 45x45mm kail wood wood frame work with a fire retardant paint applied on it forming frame work at 450-600 c/c in both directions fixed rigidly in flooring and ceiling by screws/GI cleat etc. The frame work shall have on one sides 9mm thick commercial ply,exteriors sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kail wood runner and making provision for laying conduits switches boxes with 8 x 75 mm teak wood or laminated skirting , polishing etc complete, as per instruction of Engineer in charge..	M2	7.00		-
278	P/F toilet's & pantry's counters underneath fascia of 300mm wide of desired length made up of 19mm thick commercial Board with 1.0mm laminate on user side and with balancing white on other side with 4 mm second class teak margin on top and bottom end fixed with kail wood batten of cross section 45x45mm along the horizontal length of fascia and of 45x45mm along the two extreme vertical ends, if required, (the cost of frame shall be paid extra) completed in all respect.	M	3.00		-
279	Chipping , cleaning of concrete from columns, beams and slab manually including scaffolding as directed by Engineer – in - charge and disposal of malba with in 50 m lead.	M2	40.00		-

280	Providing & fixing L shaped modular workstation fixed on medium ht partitions (MHPs) of 45mm thk panel based partition system of 1200mm ht having approved quality Aluminium section, rigid framework. The partitions shall have two concealed raceways (at bottom and mid place) in steel and covered in extruded aluminium powder coated and ABS plastic caps. The panel should have a combination of 9mm thk pre laminated soft pin up boards, and white board with matching skirtings and aluminium powder coating top trim on the top of the partition. Glass separator of 8mm thk with polished edge to be fixed between the two work tops. The work top made of 25mm thk pre laminated particle board of approved make and quality and balancing laminate of approved thickness on the unexposed surface. The work top shall be 600mm deep and are to be fixed on the partitions at 750mm ht from the FFL. All the exposed edges to have PVC edge band, the work top should be well matched in profile at corners, etc. (Size 1500 L x 1500mm W x 750mm H.) and Providing pedestal drawer units of overall dimensions of 400mm width, depth 450mm and ht 725mm having 3 drawers with locking arrangement. The inner drawer should be made of pre laminated particle board of 18mm and smooth sliding telescopic arrangement. The pedestal drawer unit shall have 18mm thk pre laminated matching and approved colour. The overall unit shall have adequate provision fixed underneath the work tops at desired locations, thereby also supporting the work tops at such places directly and neatly. with prefixed Keyboard Tray with Telescopic slides made up of ABS plastic body	EA	1.00		-
281	Providing and fixing 45mm thick panel based partition system of 1200mm ht. having approved quality Aluminium section, rigid frame work. The partition shall have two concealed raceways (at bottom and mid place) in steel and covered in extruded aluminium powder plastic caps. The panel should have a combination of 9mm thick pre laminated board, soft pin up board etc. with matching skirtings and aluminium powder coating top trim on the top of the partition complete	M2	1.00		-
282	Providing and Fixing 18mm thick pre laminated gable end fixed below the work top to balance the same. The exposed edges shall be covered and sealed with 2mm thick PVC edge bending	M2	1.00		-
283	P/P circular meeting table of 1500 mm dia - 760 mm(ht) top made up of 19mm thick commercial block board with 2.0mm thk. top veneered, with 25x30mm second class teak moulding, finished in stained spirit polish with water proof melamine finish, resting on circular shape pedestal of 900 dia made up of 50x50 mm hard wood frame work placed at a distance of 400 – 450 mm c/c in both directions, wrapped with 3mm flexible ply in layers, laminated from outer exposed side resting on 100mm wide skirting, complete in all respect.	EA	2.00		-
284	EXECUTIVE TABLE: Providing & fixing in position consisting of the followings:Top made out of 19mm comm. board, with second class teak wood moulded edging of size 32x 50 mm, with Treated wood support fr. of size 45x50 at 450c/c.The apron structure is made of 19mm th. comm. board with inner frame work of tr. wood of size 40x50mm at nominal 450c/c, with extra frame for the tapered corner edges, fixed to table top frame work. The apron and table top is to receive 1.0 mm lamination. Skirting band shall be of size 12x100mm with moulded top edge. The inner side of the apron shall have 12mm comm ply from inside to the frame work to provide finished surface. The drawer unit structure is made out of 19mm comm. bd. with drawers facia and inner structure of 115x12mm teak wood with base ply of 6mm ply with the facia edges having 12x10mm moulded beading and to receive 1.0 mm th. laminate same as the table. The table unit is to be melamine polished water proof matt finish.The drawers are to be sliding on nylon runners in aluminium channels, locking arrangement handles, brass hinges foot-rest etc.a) 1800x750x750 mm	EA	2.00		-
285	EXECUTIVE TABLE: Providing & fixing in position consisting of the followings:Top made out of 19mm comm. board, with second class teak wood moulded edging of size 32x 50 mm, with Treated wood support fr. of size 45x50 at 450c/c.The apron structure is made of 19mm th. comm. board with inner frame work of tr. wood of size 40x50mm at nominal 450c/c, with extra frame for the tapered corner edges, fixed to table top frame work. The apron and table top is to receive 1.0 mm lamination. Skirting band shall be of size 12x100mm with moulded top edge. The inner side of the apron shall have 12mm comm ply from inside to the frame work to provide finished surface. The drawer unit structure is made out of 19mm comm. bd. with drawers facia and inner structure of 115x12mm teak wood with base ply of 6mm ply with the facia edges having 12x10mm moulded beading and to receive 1.0 mm th. laminate same as the table. The table unit is to be melamine polished water proof matt finish.The drawers are to be sliding on nylon runners in aluminium channels, locking arrangement handles, brass hinges foot-rest etc.b)1500x750x750mm	EA	2.00		-
286	P/P Executive table of size 1800x900x750mm (ht) rectangular in with following components. Top made up of 30mm thick MDF board with sides from user end and visitor i.e along full length of top, ends in full round post formed in flex as per manufacturer specification and in back with balancing white, with cable manager, modesty panel 450mm wide in 18mm MDF board edges at both end full round circle post formed with flexes as per specification, resting on drawer unit and side unit at each end with provision of computer key tray. Drawer unit made up of 18mm thick MDF board Boxed from all three sides and top resting on 100mm wide recessed laminated skirting of size 300x600x760 mm (ht) with one No. drawer unit of 130mm wide running on side runner and rest in shutter (18mm MDF) with both ends half round rounded off post formed with flex as per manufactures specification and rest from inside in 1 mm white glossy laminate, complete in all respect in terms of concealed hinges, Magnet, locks, handles etc. Side units made up of 18mm thick MDF board , boxed from all three sides and top divided in to three parts , all laminated with 1mm glossy white laminate from inside; with first two horizontal shelves in 12mm MDF board post formed with full round from user side with sliding shutter made up of 18mm MDF board both end half round rounded off in post forming from user side and remaining in balancing white shutter running on slide, brand hanfa on PVC guidelines and PVC channels color brown with recessed handle, key etc. complete in all respect and remaining portion under table top opened for CPU, from front side, rest boxed, laminated from inside all resting on 100mm wide laminated slirting complete in all respect in terms of accessories.	EA	2.00		-

287	Storage unit/Side cabinet, filling cabinets consisting of 19mm thick commercial board structure, partitions, shelves, back with top moulding of 40x40mm and skirting of size 12x100mm with moulded edge. The shutters of divisions as per design shall be made of 1.0mm laminate and shutter edges to have 32x12mm moulding all around. Drawers construction shall be similar to that of the table. All exposed surface, top sides, finished in 1.0mm lamination of approved shade and texture. Brass hinges, brass ball catcher, locks to all shutters, melamine water cut matt finish, complete as per details (ii) 1050x450x675mm	EA	2.00		-
288	FMC (Low ht.) Providing making and fixing filing cabinets firmly fixed to the wall / partition and grouted to floor, 375 -450 mm deep comprising of 19 mm commercial board for shelves, bottom, shutters, apron, with all exposed of the cabinet with 1.0mm thk. lamination as per approved texture design including skirting 75 to 100 mm high laminated, all cut edges of shutter to have 25x12mm moulded teak lipping, All hardware of brass plate hinges, locks, with all wooden surface to be stained spirit polished with melamine finish. Interior of the Cabinets to have 3 coats of synthetic enamel paint with a coat of primer and back side should have 9 mm thick ply with primer. (measurement will be made for front elevation of the cabinet) a) 19 mm commercial board top with 1.0 mm thk. laminate	M2	2.00		-
289	FMC (fl to ceiling) Providing making and fixing filing cabinets firmly fixed to the wall / partition and grouted to floor, 375 -450 mm deep comprising of 19 mm commercial board for shelves, bottom, shutters, apron, with all exposed of the cabinet with 1.0mm thk. lamination as per approved texture design including skirting 75 to 100 mm high laminated, all cut edges of shutter to have 25x12mm moulded teak lipping, All hardware of brass plate hinges, locks, with all wooden surface to be stained spirit polished with melamine finish. Interior of the Cabinets to have 3 coats of synthetic enamel paint with a coat of primer and back side should have 9 mm thick ply with primer. FMC (fl to ceiling) (measurement will be made for front elevation of the cabinet) a) 19 mm commercial board top with primer	M2	2.00		-
290	CONFERENCE ROOM TABLE.: Conference room table oval shaped, consisting of the followings: Top is made of 19mm comm grade board, with base frame of treated wood of size 50x 40 mm at nominal distance of 550-600mm in both directions. The table top is to have edging of moulded second class teak of size 45 x 60mm all along the length of the top, is to be rendered with 1.0 mm th. lamination of approved shade as directed. The base pedastal is 'T' shaped -2 nos., fixed to the frame work of table top, comprises of hard wood framework of size 32x40mm at 450-500 c/c, with extra frame at the rounded edges, and at the skirting lvl., The frame work of the base pedastal is to have 19mm block board onto both sides of frame work, with t.w. moulded edge frame of size 70mm x 40mm at the vertical and the bottom edge. the exposed surface is to be rendered with 1.0 mm lamination of approved shade and texture. The table is to have stained spirit polish with water cut melamine finish. (ii) OVERALL SIZE 2100X 1050X750MM HIGH	EA	2.00		-
291	P/P drawer unit of size 770x450x730mm (ht) made up of 18mm thick MDF board, boxed from all three sides & top, inside laminated with 1.0mm white glossy, Double Shutter, edges rounded off exposed surface post formed with flex as per manufacture specification of approved shade and rest from inside with balancing white as per manufacturer specifications resting on 100mm wide recessed laminated skirting with one intermediate horizontal shelf, complete in all respect in terms of concealed hinges, handles, magnets locks etc. (Make: Godrej/Hettich))	EA	2.00		-
292	Providing and fixing and placing in position three drawers unit of size 415x450x725mm including hardware fitting half crank hinges brass handle multipurpose lock Godrej/Hettich make drawer channel etc. all complete as per item Nos 60-62 and as directed by EIC.	EA	2.00		-
293	Conference Table: (3000x1000): S&I Conference Rm. Table 40 mm thk formed out of 19 mm thick board top and 6mm thk ply bottom with filler piece to achieve 40mm thk. All edges to be strengthen in requisite width to form a profile of 40mm edges to receive moulding out of wood 40x40 mm matching to veneer as per detail and approval of Client. Top shall be finished in patterned veneer with grains/inlays as per details with 3 or more coats of melamine spray polish and fixed on drum pedestals as per design and detail of architect.	EA	2.00		-
294	Providing and fixing 12 mm thick toughened glass door of required size and design with patch fitting, 18" long heavy duty steel handle with necessary screws and floor spring, door lock (ozone/doorset make) etc. complete.	M2	10.00		-
295	Providing and fixing 12 mm thick toughened glass partition r of required size and design with patch fitting and associated works etc. complete.	M2	30.00		-
296	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	300.00		-

297	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	220.00		-
298	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side	M2	45.00		-
299	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides.	M2	45.00		-
300	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item) With float glass panes of 5.5 mm thickness	M2	30.00		-
301	Repairing of aluminum doors/windows/ventilators by changing damaged butt hinges, screws i/c dismantling and refixing the leaf, tightening of corner screws etc. complete job. For repairing up to three leafs at one location (Rate per leaf of any size).	EA	20.00		-
302	Fixing of available aluminium partition with glass and board including screws, transportation to site etc. complete in all respect as directed by EIC	M2	15.00		-
303	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item); With float glass panes of 5 mm thickness	M2	12.00		-
304	Providing and fixing 12 mm thick toughened glass door of required size and design with patch fitting and floor spring (ozone/doorset make) etc. complete.	M2	9.00		-
305	Providing and fixing handle (18" long) of Ozone/doorset make for toughened glass door with necessary screws etc. complete.	EA	8.00		-
306	Providing and fixing aluminium hinges upto 150 mm in aluminium doors / windows / ventilators i/c screws etc. complete	EA	12.00		-
307	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : b) For fixed portion Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15). With Champagne colour anodising.	Kg	200.00		-
308	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15) with champagne colour	Kg	200.00		-
309	Providing and fixing aluminium Handle for RHS/LHS aluminium windows of similar finish as for window including cleats, screws etc complete	EA	25.00		-
310					-
311	Pruning the branches of tree as required including arrangement of ladder, axe, saw etc to complete the job including removing of vegetation from site to the dumping yard upto any lead and lift.	EA	20		-
312	Proving all your equipment, tools and tackles and rendering services of Tree trimmer along with helper and consumables for trimming , pruning, cutting of branches required for lighting , safety purpose as per requirement at site complete as per direction of Owner.(The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	day	15		-

313	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x 2mm and braced with flat iron diagonals 20x5 mm size with top and bottom rail of T-iron 40x40x6mm with 40mm dia, steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles including applying a priming coat of approved steel primer.	M2	10		-
314	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x0.90 mm M.S. laths with 0.90 mm thick top cover	M2	10		-
315	Providing and fixing IRC fabric (welded mesh) of size 35x75 mm to the frame of MS angles, channels, tees, flats etc. at all floor levels including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer as required. In frames, gates etc. (Cost of MS frame will be paid separately). Fixed to steel frames by welding.	KG	75		-
316	Providing & Fixing asbestos cement 6mm thick corrugated sheets roofing up to any pitch and fixing J or L hooks, bolts and nuts 8mm dia. G.I. plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete (excluding the cost of purlins, rafters and trusses), including cutting sheets to size and shape wherever required.	M2	200.00		-
317	Providing and fixing ridges and hips in asbestos cement sheet roofing with suitable fixing accessories or self drilling fastener and EPDM washer etc. complete. Plain ACC ridges	M	100.00		-
318	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for therequired duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineerin- charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding. As per the safety requirement indicated in the safety manual of Owner. Note: - This item to be executed for work to be done by other agency as [er the requirement of Owner complete as directed.	M2	500		-
319	Injecting approved epoxy system into cracks at required pressure, cutting of nipples etc complete. (weight of epoxy shall be measured)	Kg	20.00		-
320	Injecting cement/cement sand slurry into cracks at required pressure, cutting of nipples etc. complete (weight of cement shall be measured)	Kg	90.00		-
321	Providing, drilling and inserting injection nipples along cracks linesor as directed by E.I.C for epoxy grouting or cement/cement sand slurry grouting.	EA	180.00		-
322	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : 150x100 mm P type. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	5.00		-
323	Providing and fixing square-mouth S.W. gully trap grade class SP-I complete with C.I. Grating brick masonry chamber with water tight C.I. Cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design: 180x150 mm P type. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	3.00		-
324	Electrical Works				-
325	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.- Group A	Point	400.00		-
326	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.-Group B	Point	100.00		-
327	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required-Group C	Point	50.00		-
328	Wiring for light point /fanpoint/exhaust fan/call bell point with 2X1.5 + 1X1.5 Sq mm PVC insulated copper conductor wires in recessed/surface PVC conduite,with modular switch,modular plate,suitable G.I box and earthing the point with 1.5 sq mm copper conductor wire etc as required. (Excluding of Ckt wiring from D.B to switch boards)Single light point controlled by a 6Amps modular type switch.(e) Three light points controlled by a 6Amps modular type switch.	EA	25.00		-
329	Wiring for light point /fanpoint/exhaust fan/call bell point with 2X1.5 + 1X1.5 Sq mm PVC insulated copper conductor wires in recessed/surface PVC conduite,with modular switch,modular plate,suitable G.I box and earthing the point with 1.5 sq mm copper conductor wire etc as required. (Excluding of Ckt wiring from D.B to switch boards)Single light point controlled by a 6Amps modular type switch.(f) four light points controlled by a 6Amps modular type switch.	EA	25.00		-
330	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 1X 1.5 Sqmm	M	500.00		-

331	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3 X 1.5 Sqmm	M	1500.00		-
332	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 2.5 Sqmm	M	3000.00		-
333	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 4 Sqmm	M	2000.00		-
334	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 6 Sqmm	M	100.00		-
335	WIRING 4x10+2x6 sq mm Supply and drawing of following sizes of PVC insulated stranded copper conductor wires of 1100 Volts grade in existing conduit, pipe including connection/termination etc as required.(e) 4x10+2x10 sq mm	M	200.00		-
336	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 16 sq. mm + 2 X 6 sq. mm earth wire	M	50.00		-
337	Providing and fixing of plug - in type telephone socket outlet (RJ-11) with G.I.outlet box and cover plate complete as required. Single plug in type	EA	100.00		-
338	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required- 4 Pair	M	2500.00		-
339	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required- 50 Pair	M	100.00		-
340	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 20 mm	M	200.00		-
341	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 25 mm	M	2500.00		-
342	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 32 mm	M	75.00		-
343	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 40 mm	M	100.00		-
344	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 50 mm	M	100.00		-
345	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 5/6 amps switch	EA	25.00		-
346	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 2 way 5/6 amps switch	EA	50.00		-
347	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 15/16 amp switch	EA	50.00		-
348	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 3 pin 5/6 amp socket outlet	EA	50.00		-
349	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 6 pin 15/16 amp socket outlet	EA	50.00		-
350	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 1 -2 Module	EA	100.00		-
351	Supply and fixing of 6/16 Amp switch, sockets of MK make modular type in PVC/GI box complete in all respects with testing & commissioning.	EA	150.00		-
352	SWITCHED SOCKET OUTLETS (6 A AND 16 A) Supplying and fixing of a set of 2 Nos 6 A Socket outlets and one no 16 A Socket controlled by 16 A Master Switch of MK make including GI/PVC box, connections complete in all respect	ST	25.00		-
353	SWITCHED SOCKET OUTLETS (6 A) A set of 2 Nos. 6 A switched socket outlets (FOR UPS )in a box, with providing & fixing 2 nos. 2/3 pin 6 A switches & socket outlets( But switch& socket should be at defferent possition or as required)..	ST	200.00		-
354	Supply & fixing of a set of one 6 amp switch & socket of modular type with suitable size G.I box.	EA	300.00		-
355	Supply & fixing of anchor make batten typ lamp holder & one no 11 watt CFL	EA	20.00		-
356	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as requireds	EA	100.00		-
357	INDUSTRIAL SOCKET OUTLETS (25/32A DPMCB) Supply, installation, testing & commissioning of industrial type plug and socket outlet with SP/TPN MCB (10 KA motor duty) mounted on a sheet steel enclosure including termination, earthing etc as required . (b) Supply and fising of 25/32 Amp DP MCB (C series) of approved make in MS encloser	EA	100.00		-
358	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	EA	25.00		-
359	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB omplete with connections, testing and commissioning etc. as required. Single pole	EA	250.00		-
360	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole and neutral	EA	20.00		-

361	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Triple pole	EA	20.00		-
362	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 25 amps	EA	60.00		-
363	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	EA	30.00		-
364	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	EA	30.00		-
365	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps MCB four pole.	EA	25.00		-
366	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 25 amps	EA	25.00		-
367	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	EA	25.00		-
368	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	EA	5.00		-
369	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32amps 240 volts "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	EA	30.00		-
370	Supplying and fixing TP sheet steel enclosure on surface/ recessed along with 16/25/32amps 415 volts "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	EA	15.00		-
371	Supply & fixing of single phase 3-pin 32 Amp rating floor mounted industrial sockets weather proof IP 67 of Legrand/Neptune /Balls make complete pair with male & female type plug & socket arrangement.	EA	50.00		-
372	Supply & fixing of 63 Amp 3 phase 5 pin IP 65 industrial socket with top & complete with encloser & 3 phase MCB of 63 amp rating of HAGER / Legrand /L&T /Merlingerin make	ST	10.00		-
373	Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 30 A, "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	EA	20.00		-
374	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 4 way (4 + 12), Double door	EA	10.00		-
375	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 6 way (4 + 16), Double door	EA	10.00		-
376	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 8 way (4 + 24), Double door	EA	10.00		-
377	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, EArth bar, din bar for mounting MCB's (but without MCB's and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 12 way (4 + 36), Double door	EA	10.00		-
378	Providing and fixing following rating and braking capacity and 3 pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.125 Amp, 16 KA,TPMCCB	EA	10.00		-
379	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 12 way, Double door	ST	10.00		-
380	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 8 way, Double door	EA	10.00		-

381	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 16 way, Double door	EA	10.00			-
382	VTPN (ACDB): 6W TPN Supply, installation, testing and commissioning of following double door type distribution boards fabricated out of 16 SWG, CRCA sheet steel recessed in wall or surface mounted. 6-way TPN AC DB double door type (IP 43),consisting of one no100 Amp TP MCCB (10 KA) as in commer & 18 no 25/32 Amp S.P MCB as out going.	ST	10.00			-
383	VTPN DB (ACDB): 8W TPN Supply, installation, testing and commissioning of following double door type distribution boards fabricated out of 16 SWG, CRCA sheet steel recessed in wall or surface mounted. 8 -way TPN AC DB double door type (IP 43),consisting of one no100 Amp TP MCCB (10 KA) as in commer & 18 no 25/32 Amp S.P MCB as out going.	ST	10.00			-
384	Supply, laying & fixing of following sizes of Cu/GI strip/wire clamped to walls, cable trays etc for equipment/ System earthing complete as required including inter connection between length at joints, all fixing accessories saddles, clamps etc and other fixing hardware material as required for proper installation.8 SWG G.I Wire	M	100.00			-
385	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	EA	10.00			-
386	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	ST	10.00			-
387	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	ST	6.00			-
388	Supply, Installation, Testing & Commissioning of Advance Miantenance Free Chemical Earthing System of 10 feet length, 63mm dia, 2 mm thick electrolytic grade copper tube duly filled with conducting chemicals with the permanant sealings at the both the ends with the lead terminal at the top along with 50 Kgs a chemical GEM to retain the life span of 15 years with the heavy duty poly plastic earth pit cover. The chemicalearthing system should be fabricated with earthing electrode and back fill compound which has the capability to enhance the ground connectivity. The connectivity should be extended to the place of equipment thourgh the copper strip which will be burried under ground.The specification of the electrode are as under a) Electrode should be 3 meter long 63mm thick in diameter =0 1 no B) Should be made of galvinsed steel (90-100) microns with pipe in pipe technology C) Annular space filled with high conductive and anti corrosive withhigh conductive and anti corrosive crystalline conductive mixture D) Should be strong and corrosion resitant E) Manufactured in accordance with PS 3043-1987 (Code of pratice of earthing) F) Electrode should be dug in ground Sralong with soil friendly, moisture retaining back fill compound which has capability to enhance groundconductivity (min 125Kg of back fill compound for earthing system) G) The result should be below 1 Ohm in any case .	ST	2.00			-
389	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	M	100.00			-
390	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	M	200.00			-
391	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 2.5 Sq mm Copper armoured XLPE cable	M	20.00			-
392	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 4 Sq mm Copper armoured XLPE cable	M	20.00			-
393	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 6 Sq mm Copper armoured XLPE cable	M	20.00			-
394	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC <u>insulated Aluminium conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. b) 3 core 6 Sq. mm Aluminium	M	250.00			-
395	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. a) 2 core 10 Sq. mm Aluminium	M	250.00			-
396	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 3 C x 10 Sq.mm	M	250.00			-
397	4CX10sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. b ) 4 core 10 Sq mm Aluminium	M	250.00			-
398	4CX16 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 16 Sq mm Aluminium	M	250.00			-
399	4CX25 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 25 Sq mm Aluminium	M	100.00			-

400	4CX35 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 35 Sq mm Aluminium	M	100.00			-
401	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 50 Sq.mm	M	50.00			-
402	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4C x 95 Sq.mm	M	25.00			-
403	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 185 Sq.mm	M	25.00			-
404	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 300 Sq.mm	M	25.00			-
405	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Upto 25 sq. mm	M	500.00			-
406	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Above 25 sq. to 120 sq. mm	M	50.00			-
407	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Above 120 sq. mm to 400 sq. mm	M	50.00			-
408	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes <b>on surface</b> as required:- Upto 25 sq. mm	M	50.00			-
409	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes on surface as required:- Above 25 sq. to 120 sq. mm	M	50.00			-
410	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes on surface as required:- Above 120 sq. mm to 400 sq. mm	M	50.00			-
411	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following sizes in the existing RCC/ HUME/ STONEWARE/ METAL pipe as required:- Upto 25 sq. mm	M	50.00			-
412	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following sizes in the existing RCC/ HUME/ STONEWARE/ METAL pipe as required:- Above 25 sq. mm to 400 sq. mm	M	50.00			-
413	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 3 C x 10 Sq.mm	ST	30.00			-
414	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 10 Sq.mm	ST	30.00			-
415	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 16 Sq.mm	ST	30.00			-
416	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. End termination 4 X 25 sq. mm (28mm)	ST	5.00			-
417	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. End termination 4 X 35 sq. mm (32mm)	ST	5.00			-
418	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 50 Sq.mm	ST	15.00			-
419	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 95 Sq.mm	ST	10.00			-
420	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 185 Sq.mm	ST	5.00			-
421	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4C x 300 Sq.mm	ST	5.00			-
422	Supply and fixing of 36 watt T8 or 28 watt T5 lamps in existing light fixtures.	EA	5.00			-
423	Supplying and Fixing of Flood light of philips Out door type BRP 022 LED - 21 watt LED street light fittings of Philips including GI pipe for mounting the light and accessories like clamps, bolt, nut etc with testing and commissioning in all respect.	EA	2.00			-
424	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. b) 1x 18 Watt LED wall light model type 31081 4 feet long Fixture of philips surface mounted type .	EA	100.00			-
425	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. b) 1x 9 Watt LED wall light model type 31081 2feet long Fixture of philips surface mounted type .	EA	25.00			-

426	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. <b>surface mounted. LED philips lighting Sereno LED /SP 824 P LED 29S-5000 GR OD,</b>	EA	10.00		-
427	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required.e) Supply, Installation of philips bulk head light fittings of CAT no FXC 101 including 11 watt CFL lamp	EA	5.00		-
428	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Recessed mounted fitting with <b>1 x 12 Watt, LED Light</b> (Make:-Philips CAT No. DN192B-LED9S-6500 PSU WH) or equivalent.	EA	100.00		-
429	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:-Recessed mounted fitting with <b>1 x 12 Watt, LED Light</b> (Make:-Philips CAT No. DN193B-LED12S-6500 PSU WH) or equivalent.	EA	50.00		-
430	Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of Recessed mounted , minimum 600 lumens LED light fitting complete as required., (Philips : Green LED Ultima Circular DN091B LED6S-6500 PSU WH orEquivalent),,	EA	20.00		-
431	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:-Surface mounted circular fitting with <b>1 x 13 Watt LED Light</b> (Make:-Philips CAT No. BBS313 1xDLED-5000 WH) or equivalent.	EA	1.00		-
432	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Recessed mounted fitting with <b>4 x 14 Watt, LED Light</b> , direct-indirect lighting luminaire with special seamlessly integrated frame and full Opal Acrylic Diffuser (OAD) (Make:-Philips CAT No. 2' x 2' LED-RC380B LED-25-6500 PSE OD WH (40W)) or equivalent	EA	100.00		-
433	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Surface mounted fitting with <b>1 x 12 Watt, LED surface Light Square (CW)</b> (Make:-Philips Square panel LED Light)	EA	10.00		-
434	Supplying and Fixing of Flood light of philips Out door type BVP161 30 watt LED street light fittings of Philips including fixing clamp ,accessories like clamps, bolt, nut etc with testing and commissioning in all respect.	EA	10.00		-
435	Retrofitting of existing recessed type light fixtures T8/T5 2X36 /40 watt by LED lamps of 2 X 18 watts of philips complete with retrofit arrangement.	EA	20.00		-
436	Retrofitting of existing recessed type light fixtures T8/T5 1 X36 /40 watt by LED lamps of 1 X 18 watts of philips complete with retrofit arrangement.	EA	10.00		-
437	Supply & fixing of Philips / Wipro / 3M , warm white colour LED light strip 5 watt per meter ,complete with power supply adppter etc.	M	10.00		-
438	Suspended type 8 ft, minimum 5400 lumen Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of suspended type 8 ft, minimum 5400 lumens LED light fitting with continuous interconnection feature, complete as required., (Regent Slash 28W or Equivalent),, Complet with suspention arrangement & clamps etc	EA	1.00		-
439	Recessed type 8 ft, minimum 5400 lumen Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of suspended type 8 ft, minimum 5400 lumens LED light fitting with continuous interconnection feature, complete as required., (Regent Slash 28W or Equivalent),, Complet with suspention arrangement & clamps etc	EA	1.00		-
440	Supplying and fixing of 250 mm dia exhaust fan with louvers and bird screen of PVC body in existing opening with 900 rpm (Approved make) of 250 mm dia .	EA	5.00		-
441	Supplying and fixing of exhaust fan with louvers and bird screen of PVC body in existing opening with 900 rpm (Approved make) b) 305 mm dia	EA	10.00		-
442	Supplying and fixing of 305 mm dia exhaust fan with louvers and bird screen of MS body in existing opening with 1400 rpm (Approved make) of 305 mm dia	EA	10.00		-
443	Heavy duty Exhaust fan 450 mm dia Supplying and fixing of size of exhaust fan with louvers and bird screen of Heavy duty of MS body in existing opening with 1400 rpm (Approved make) b) 450 mm dia(1400 rpm)	EA	5.00		-
444	Stainless Steel cover-Supplying and installation of following sizes 2.0 mm thick 4 way GI boxes with 2.0 mm thick Stainless Steel cover and fixing SS hardware in recess/ on surface including chasing the wall/floor complete as required. A) 200 x 200 x 50-75 mm	EA	25.00		-
445	Supply & fixing of 2 to 3 mm thick SS plates of size 300 X300 mm complete drilling the holes finishing & polishing the same	EA	5.00		-
446	Supply & laying of aluminium /GI floor race way of size 100X40 mm imbeded in floor including cutting of PCC & cover tge same with semi finish	M	10.00		-
447	Supply & laying of aluminium /GI floor race way of size 100X50 mm imbeded in floor including cutting of PCC & cover tge same with semi finish	M	10.00		-
448	Supplying and installing following size of perforated pre-painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required 150 mm width X 50 mm depth X 1.6 mm thickness.	M	10.00		-
449	Fabricating & installing perforated GI cable trays including horizontal and vertical bends, reducers, tees, cross members and other accessories as required including GI C Channe supports of 300 mm width x 50 mm depth x 2 mm thickness (/SLOTCO BEECO /RICO Steel)	M	10.00		-

450	Fabricating & installing perforated GI cable trays including horizontal and vertical bends, reducers, tees, cross members and other accessories as required including GI C Channe supports of 450 mm width x 50 mm depth x 2 mm thickness (SLOTCO BEECO /RICH Steel)	M	10.00		-
451	Providing and fixing of Fan Hook in existing Slab including cutting cement concrete and making good the same.	EA	10.00		-
452	Installation,fixing,testing,comissioning & assembling the street light 70 watt/120 Watt/ 150 watt/250/400 watt Normal OTR LED fittings complete with inter connection of blasst ,starter /iginator and lamp etc (Fittings with parts are supplied by TPDDL at site).	EA	25.00		-
453	Supply & fixing of 1-1/2 inch dia GI pipe medium class 750 mm to 1000 mm long, light fittings mounting brackets with 02 no mounting clams complete with nut bolt &washer etc	EA	50.00		-
454	Providing & installation (laying) of PVC insulated un armoured cable of 1.5 Sq mm 2 core including termination connection etc	M	200.00		-
455	Supplying and fixing Testing & commissioning with cable connection / termination of 200 mm x 160 mm x 98 mm (inner size) Pole Box made of polysterene thermoplastic having shock proof, bweather proof, rust proof, water proof (conforming to IP-65) enclosure having suitable size knock outs for cable entry in surface/recess of wall or on existing pole with 2 nos. of G.I. Clamps including 6 /10A SPMCB & 3 nos. Connectors suitable for 6/16/25 sq.mm. XLPE insulated cable for looping in and outwith branch out suitable for 2.5 sq.mm. PVC insulated wire including interconnections etc. as required.	EA	10.00		-
456	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required. 5/6 amps switch	EA	10.00		-
457	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.2 way 5/6 amps switch.	EA	10.00		-
458	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.15/16 amp switch	EA	10.00		-
459	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required. 3 pin 5/6 amp Socket.	EA	10.00		-
460	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.6 pin 15/16 amp socket outlet	EA	10.00		-
461	Supply and laying of 25 mm Dia PVC flexible conduits complete with dressing and fixing etc,	M	50.00		-
462	PVC Insulated copper Arm. Cable 1.5 SQ.MM. 2 Core Providing & Installation of PVC insulated Copper armored cable 1.5 sq. mm 2 core including termination connections etc. as required.	M	1000.00		-
463	Manual Call Box Providing & Fixing of manual call box in suitable enclosure with arrangements to raise the alarm when the glass is manually broken, complete as required	EA	25.00		-
464	Electronic Fire Hooter Providing & Fixing electronic fire hooters of 120dB sound level, suitable for mounting, complete as required.	EA	25.00		-
465	Blinking Type Smoke Detector Providing & Fixing of Blinking type Smoke Detector (Dual chamber ionisation type with mounting base, complete as required.	EA	150.00		-
466	Blinking Type Photoelectric Smoke Detector Providing & Fixing of Blinking type photo Electric type Smoke Detector with mounting base etc. complete as required.	EA	2.00		-
467	Blinking Type Fixed Temperature Heat Det Providing & Fixing of Blinking type Rate of Rise cum Fixed Temperature Heat Detector with mounting base etc. complete as required.	EA	25.00		-
468	Supplying, installing, testing and commissioning 4 zone Main Control Panel with zone indication. The panel shall include solid state circuits, battery charger, batteries etc. and fire/fault/test positions selector switches, zone isolation facility etc. complete as required.	EA	10.00		-
469	Supplying, installing, testing and commissioning 2 zone Main Control Panel with zone indication. The panel shall include solid state circuits, battery charger, batteries etc. and fire/fault/test positions selector switches, zone isolation facility etc. complete as required.	EA	10.00		-
470	Fire Detection Panel 3-6 Zones Providing, Fixing and commissioning the new fire detection panel of similar specification complete in all respect for: 3 to 6 Zone Micro-processor based fire alarm panel with made of 16 SWG CRCA Sheet with hinged front cover and acrylic sheet in the front with locking arrangement and inbuilt battery Box, comprising of Audio/visual alarm Indication of fire & fault etc, with Control panel consisting 8 bit system CPU 11.0592 MHz WDT processor, 16 X 4 line LCD display, time and date on LCD, complete with 100 event data logger with date and time stamp, optional serial direct thermal dot line printer connectivity with 48mm print width, indications for fire, fault, mains power and battery. The panel shall also contain annunciation window type indicators for fire and fault. Panel should support a) RS 485 serial communication mode for active repeater b) TCP/IP converters for centralized monitoring of the panel from any remote PC c) ATX key board support for field programming d) PA system connectivity for announcement and alerting. The panel shall contain built-in battery charger and battery space for 2 X 12V, 7Ah maintenance free battery (Exide/ Panasonic) for 6 hrs back up in normal case and 30 min back up in case of alarm. (Approved Make: Honeywell/Agni Suraksha(Dataatakex) / Safeway /System Sensor)	EA	1.00		-
471	Please consider as following : Response indicator with twin transparent LED that shall glow red in case of fire.	EA	30.00		-
472	MS galvanized boxes - used as the base of the detector installed at the ceiling	EA	40.00		-
473	Supply & fixing of MINILEC make single phase suitable up to 32 Amp auto transfer switch complete with auto / adjustable timer for auto ON/OFF one by one each AC units as per timer setting , suitable for server rooms AC units	EA	5.00		-
	<b>Total Excl. GST</b>				-
	<b>GST @18%</b>				-
	<b>Total Incl. GST</b>				-

Work is to be carried out in the areas, locations covered under various Divisions, Sub - Divisions, Sections of the WESCO Utility Circle as mentioned in the attached Annexure II. Vendors need to visit these areas / locations to understand the scope of work and get acquainted with the areas , local conditions, availability of resources etc. where works are required to be executed.

The rates finalised for the Circle shall be applicable to all the works covered under Divisions, Sub - Divisions, Sections of the Circle.

**General Civil Works in various areas under Sambalpur Circle of WESCO Utility**

Sr. No.	Brief Item description	Unit	Qty	Rate	Amount
1	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	500		-
2	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, dewatering and depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	500		-
3	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>1.51 to 3.0</b> mtrs	M3	400		-
4	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, dewatering and depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>1.51 to 3.0</b> mtrs	M3	400		-
5	Providing cartage service and transporting, excavated soil, debris, bricks, concrete, scrapwood including loading and unloading and disposing off to dumping sites approved by statutory bodies outside premises including submission of relevant documents, as applicable outside the station premises. (Note. Payable measurement shall be dismantelled qty. (Voids to be deducted as applicable whenever heap / truck mesurements are taken))	M3	400		-
6	Excavation in all types of <b>hard rock with mechanical equipment rock breaker</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	25		-
7	Providing close timber shoring consisting of 25 mm thk. walling and struts of size 100x100 mm or any other suitable alternative to sides of excavation / trenches / pits etc. wherever necessary and as directed for depth from 0 to 1.50 Mtrs	M2	200		-
8	Providing close timber shoring consisting of 25 mm thk. walling and struts of size 100x100 mm or any other suitable alternative to sides of excavation / trenches / pits etc. wherever necessary and as directed for depth from 1.51 to 3.00 Mtrs	M2	200		-
9	Backfilling trenches in 225 mm thick layers consolidated to 150mm.with murrum / excavated material (available at site upto 100 mtr.) including compaction of backfill by watering and tamping with approved hand or mechanical tampers.	M3	105		-
10	<b>Backfilling</b> trenches in 225 mm thick layers consolidated to 150mm <b>with murrum procured externally</b> including compaction of backfill by watering and tamping with approved hand or mechanical tampers. (mode of measurement will be Pre & Post work levels.Voids to be deducted at 20% if on truck measurement))	M3	35		-
11	Providing and laying 225 or 300 mm thick <b>dry rubble soling</b> with approved quality stones including filling gaps with small chips ramming with hand rammer etc. complete.	M3	400		-
12	Providing and laying 225 or 300 mm thick <b>dry rubble soling</b> with approved quality stones including filling gaps with small chips ramming with hand rammer etc. complete.(Rubble will be supplied by Tata's free of cost / <b>using available rubble at site</b> )	M3	35		-
13	Providing and spreading <b>metal No.3 or 4</b> in trenches or for pathways (including all materials) in layers for all thicknesses from 75 mm thick onwards and consolidating the same with hand rammer, etc. complete.	M3	28		-
14	Spreading and laying <b>metal No.3 or 4</b> in trenches or for pathways (including all materials) in layers for all thicknesses from 75 mm thick onwards and consolidating the same with hand rammer, etc. complete by <b>using metal available at site</b> .	M3	35		-
15	<b>Demolishing Brick Wall</b> (Including Plaster) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	35		-
16	<b>Demolishing Plain Cement Concrete (PCC)</b> (Including Plaster, flooring, mortar bedding) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	35		-
18	<b>Demolishing Reinforced Cement Concrete (RCC)</b> (Including Plaster, flooring, mortar bedding,Cutting Reinforcement) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	30		-
19	<b>Demolishing / removing Plaster of various thickness</b> and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M2	150		-
20	<b>Demolishing Asphalt Surface of various thickness</b> and transporting debris within companies premises or as directed including providing tools, tackles and pneumatic equipment as directed	M3	30		-

21	<b>Demolishing Rubble Soling / Pitching upto 300 mm thickness</b> and transporting debris within companies premises or as directed including providing tools, tackles and pneumatic equipment as directed	M3	7		-
22	<b>Dismantling</b> and neatly stacking <b>structural steel</b> work of roof trusses, purlins, beams, columns, chequered plate floorings, treads, risers, stringers, bracings, runners, fencing posts etc. at all heights including providing all accesories complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include returning the dismantled members to owner's stores at division etc. complete as directed.	MT	35		-
23	<b>Dismanting</b> and stacking including removal of wooden or steel frame work,angle supports etc. complete as directed for <b>Doors / Windows / Ventilators.</b>	M2	35		-
24	<b>Dismantling</b> and removal of <b>chainlink fencing</b> including removal of angle posts & barbed wire and returning the dismantled members to owner's stores at division etc. complete as directed. including scaffolding as per safety standards etc. complete as directed.(Rate shall inclusive of providing necessary tools tackles , cutting set, welding set wherever required.)	M2	140		-
25	<b>Dismantling</b> and stacking <b>AC or CGI sheets</b> on roofs or partitions excluding removal of wooden or steel frame work, angle supports etc. complete. (Rate including returning AC sheets in usable condition to store) for AC or CGI Sheet in usable condition	M2	70		-
26	<b>Providing</b> all the materials including screws, bolts and fixing corrugated <b>A.C. Sheet, GI Sheet, Galvalume sheet</b> on partition, roof or any other place including cutting, screwing etc. complete at all elevations (Only Sheets shall be supplied by TATA's free of cost)	M2	300		-
27	Carefully breaking and removing old tiles in floor / dado / skirting including mortar bedding / plastering and carting away debris and stacking tiles pieces within Owner's premises as directed by Engineer. (Mosaic / Plain Cement Tiles, Glazed Tiles & Nonskid ceramic tiles etc.)	M2	100		-
28	Dismanting and stacking including removal of wooden or steel frame work,angle supports etc. complete as directed for <b>Doors / Windows / Ventilators.</b>	M2	500		-
29	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Raft / footings</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	50		-
30	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Pedestals, columns, walls</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	20		-
31	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Beams / slabs</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	10		-
32	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Raft / footings</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	50		-
33	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Pedestals, columns, walls</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	20		-
34	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Beams / slabs</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER .	M3	10		-

35	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Pardis / Fins</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER.	M3	3		-
36	Providing all the materials laying Indian Patent Stone flooring in M15 grade concrete, including finishing the surface & curing etc. complete as directed ... 37 mm thk with Aluminium strips in panels of 2 x 2 M (Cement Consumption 0.36 Bag/M2)	M2	35		-
37	Providing all the materials laying Indian Patent Stone flooring in M15 grade concrete, including finishing the surface & curing etc. complete as directed ... 50 mm thk with Aluminium strips in panels of 2 x 2 M(Cement Consumption 0.48 Bag/M2)	M2	35		-
38	Supplying, Providing and laying in position <b>plain cement concrete of grade M10 machine mixed, vibrated and placed to correct line and level in levelling course/fill under or around foundations pits, slabs on grade, sumps, soak pits</b> , etc. at any depth with 30 mm down graded coarse aggregates including curing, compacting, de-watering wherever necessary, providing marine plywood shuttering form work wherever required etc. complete. (Min cement content 210Kg/m3)	M3	20		-
39	Supplying, Providing and laying in position <b>plain cement concrete of grade M15 machine mixed, vibrated and placed to correct line and level in levelling course/fill under or around foundations pits, slabs on grade, sumps, soak pits</b> , etc. at any depth with 30 mm down graded coarse aggregates including curing, compacting, de-watering wherever necessary, providing marine plywood shuttering form work wherever required etc. complete. (Min cement content 300 Kg/m3)	M3	30		-
40	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 12.5 mm nominal size).	M3	8		-
41	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	M2	200		-
42	Providing and fixing precast reinforced concrete cable trench covers, drain covers, fencing post, etc of class M25 concrete w/c 0.5 (max) leaving cutouts/ pockets, placing of inserts/ embedments, etc., complete all as per drawing including shuttering, vibrating, machine mixing, providing lifting arrangements, placing inserts curing handling, transporting, etc. complete but excluding the cost of providing reinforcement, inserts / embedments,with 30 mm downgraded aggregates. (Cement consumption 7.9 Bag/M3)	M3	4		-
43	Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding <b>reinforcement steel</b> for all types of RCC / Precast work irrespective of locations & levels all as per drawings including steel scaffolding, handling and transporting from site stores, complete as directed by using High yield strength deformed bars conforming to IS 1786 - <b>HYSD Bars</b>	TO	7		-
44	Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding reinforcement steel for all types of RCC work irrespective of locations & levels all as per drawings including handling and transporting from site stores complete as directed y using Mild Steel bars conforming to IS 432 - M S Bars / rods	MT	2		-
45	Providing all material and constructing brick masonry 230mm. thick and above in cement mortar (1:5) using approved quality, class 50 conforming to IS:3102 table moulded bricks, including leaving inserts / pockets, steel scaffolding, curing, raking joints, etc.	M3	300		-
46	Providing all material and constructing brick masonry 115 mm. thick and in cement mortar (1:4) using approved quality, class 50 conforming to IS:3102 table moulded bricks, including leaving inserts / pockets, steel scaffolding, curing, raking joints, etc. Any reinforcement required to be placed shall be paid separately in reinforcement item of this BOQ.	M2	200		-
47	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand)	M3	250.00		-
48	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	M3	50.00		-
49	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	M2	200.00		-
50	Providing all materials and carrying out <b>sand faced plaster 25 mm thick in two layers</b> (first layer of 16 to 18 mm and second layer of 6 to 8 mm thickness ) and plastering external surfaces of concrete and brick work such as walls, columns, beams etc. with 1:4 cement mortar, including providing & erecting steel scaffolding, hacking of concrete surfaces, curing including bands, drip moulds, grooves, etc. complete with 2% Accoproof or approved waterproofing compound	M2	500		-
51	Providing all materials and carrying out <b>sand faced plaster 18 mm thick in sigle layer</b> and plastering external surfaces of concrete and brick work such as walls, columns, beams etc. with 1:4 cement mortar, including providing & erecting steel scaffolding, hacking of concrete surfaces, curing including bands, drip moulds, grooves, etc. complete with 2% Accoproof or approved waterproofing compound	M2			-
52	Providing and <b>plastering internal surfaces</b> of concrete and brick work such as walls, ceilings, columns, beams, etc. with cement mortar 1:4 mix <b>finish smooth with 1:1 proportion cement &amp; slaked lime neeru / instant neeru</b> , including providing and erecting steel scaffolding, hacking concrete surface, providing bands, grooves drip moulds, curing, etc - <b>12 mm thk</b>	M2	105		-

53	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface to receive exterior quality paint , Applying a coat of approved Primer and Two Coats of Paint. Including necessary scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Exterior quality Plastic Emulsion paint</b>	M2	150		-
54	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface plain by applying putty, Applying a coat of approved Primer and Two Coats of Paint. Including necessary steel scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Synthetic Enamel Paint</b>	M2	150		-
55	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface plain by applying putty, Applying a coat of approved Primer and Two Coats of Paint. Including necessary steel scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Internal quality Plastic Emulsion paint</b>	M2	140		-
56	Providing all materials, tools tackles and labour, preparing the surface by scrapping / wire brushing to remove loose scales, Applying 3 coats of <b>White Wash</b> of approved Shade & Manufacturer, including necessary steel scaffolding / staging etc. complete as directed.	M2	140		-
57	Providing all materials roughening the surface and carrying out <b>waterproofing treatment to roof with brickbat coba</b> with well burnt half to three quarter bricks laid on edge diagonally, grouted with 1:3 CM with water proofing compound 5% by weight of cement of average thickness 125 mm including 50 mm thk IPS M15 grade including surfaces up to 300 mm above the finished surface on side walls( Measurements shall be based on net plan area only). Work to be guarantted for minimum 7 years	M2	70		-
58	Providing and constructing <b>112mm thick brick masonry Partition Walls in CM 1:4</b> including, scaffolding, curing, racking of joints for plastering or pointing, including transomes and mullions complete at all heights as per specification and as directed. (Reinforcement will be measured and paid for separately.)	M2	7		-
59	Providing and constructing <b>uncoursed rubble masonry in CM 1:5</b> including leaving inserts / pockets, steel scaffolding, curing, raking out joints for plastering / pointing complete for 0 to 4.00 Mtrs. High (Cement consumption 2.26 bag/M3)	M3	35		-
60	Providing all your tools and tackles and rendering services of Electrician / Carpenter / Plumber along with helper and consumables for minor repairs i/c providing washers, thread, m seal, screws, nails, fevicol, fuse wire, insulation tape and T & P as per requirement at site complete as per requirement of Owner.(The unit of per day is meant for 8 hours and it shall be paid judiciously on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	Day	90.00		-
61	Providing and fixing GI chicken wire mesh on concrete and masonry joints using nails, T&P etc. as per direction of the EIC complete.	M2	50.00		-
62	Making round opening in wall for exhaust fan upto 450 mm including making good the wall, jamps with cement mortar 1:4 (1 cement : 4 coarse sand) and finishing complete.	EA	10.00		-
63	Providing all the materials and carrying out <b>raised or flush cement pointing</b> in 1:3 cement mortar including providing and erecting steel scaffolding, curing, etc. complete <b>to rubble masonry / rubble pitching</b>	M2	35		-
64	Providing all the materials and equipments, fixing <b>marble mosaic tiles</b> of approved make such as BHARAT / NITCO / SIMPLEX or equivalent in floors and including cleaning the base laying 25 mm thick bedding mortar of one part of cement two parts of lime and six parts of sand, floating tiles in cement slurry at 5 Kg / M2, polishing with machine including washing with oxalic acid as directed, Neutral Shade tiles floated in Grey Cement.	M2	30		-
65	Providing and fixing <b>25mm thick Kotah Stone flooring</b> (machine cut and machine polished) with necessary cement mortar bedding, floating with matching colour cement, curing, machine polishing, cleaning etc. complete.	M2	25		-
66	Providing and fixing <b>35mm thick machine cut machine polished black kaddappa stone</b> of any sizes for counter / cooking platform with necessary cement mortar bedding and floating with matching colour cement, curing, polishing, cleaning etc or cutting grooves in walls & redoing in CM (1:3) complete.	M2	20		-
67	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels Granite of any colour and shade. Area of slab over 0.50 sqm.	M2	20		-
68	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels. a) Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble. Area of slab over 0.50 sqm.	M2	20		-
69	Providing half round edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Marble work	M	10		-
70	Providing half round edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work	M	10		-

71	Providing and fixing first quality <b>non-skid ceramic tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:5 bedding of average thickness 40mm , floated with matching cement etc. complete of size (300mm X 300mm). Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	30		-
72	Providing and fixing first quality ceramic <b>glazed tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:5 bedding of average thickness 40mm , floated with matching cement etc. complete of all sizes. Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	50		-
73	Providing and fixing first quality <b>Coloured glazed tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:4 bedding upto 40mm , floated with matching cement etc. complete of all sizes upto 300 x 600. Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	20		-
74	Providing and fixing first quality ceramic <b>vitrified tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor laid to line and level on cement mortar 1:4 bedding upto 75mm , floated with matching cement etc. complete of size 600 x 600.	M2	50		-
75	Rubbing and grinding of existing terrazo/mosaic flooring i/c polishing to the desired finish complete at all floor levels	M2	500.00		-
76	<b>Fabricating and erecting structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts, and washers and applying one coat of Shalimar or any other approved make red oxide (primer) paint to all the exposed surfaces of steel. <b>Only structural Steel to be provided by Owner at the nearest store</b>	TO	80		-
77	<b>Providing steel and supplying all material, fabricating and erecting structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as per the approved drawing or as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts, and washers and applying one coat of Shalimar or any other approved make red oxide (primer) paint to all the exposed surfaces of steel. Structural steel section shall be of primary manufacturer and confirm to IS2062 requirements	TO	80		-
78	<b>Providing steel and supplying all material, fabricating and erecting galvanized structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as per the approved drawing or as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of GI bolts, and nuts, and washers. Structural steel section shall be of primary manufacturer and confirm to IS2062 requirements & GI coating shall confirm to IS2629 (1985) & 4759 (1996) .#contractor shall submit the test certificate of GI coating thickness. Thickness should be 80 Microns HOT Dip.	TO	10		-
79	Providing steel and Supplying all material for Fabricating and erecting all types of steel work including welding, gas cutting, grinding, drilling of holes, or other lifting arrangements etc. Contractor shall use his own welding set, gas cutting set, gas, approved quality of welding electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts , and washers and applying coats of Zinc primer to all the exposed surfaces of steel. <b>For MS Chequered plates.</b>	MT	15		-
80	Providing, fabricating and erecting <b>6 / 8 / 10 mm thick aluminum Chequered plate</b> for platform, flooring, treads, risers, stringers, bracings, runners etc. at all heights including straightening, cutting, grinding, drilling of holes or other lifting arrangements, etc. complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of bolts, and nuts' washers and other fixtures etc. complete.	MT	5		-

81	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete. 75 mm overall thickness partition with 12.5 mm thick double skin fire rated Glass Reinforced Gypsum (GRG) board conforming to IS: 2095: (part 3) : 1996 (Board with BIS certification marks)	M2	20.00		-
82	Providing all your equipment, tools and tackles and rendering services including consumables for welding of various steel works viz doors, windows, gates, partitions,grills etc., including hiring charges of welding machine with welder & helper, carriage etc complete in all respect. (The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	day	30		-
83	Providing and fixing powder coated aluminum Partition part panelled and partly glass 8mm thick Main frame shall be made out of Hollow extruded sections of size 100mm x 75mm x 14 gauge.	M2	35		-
84	Providing and fixing powder coated aluminum doors part panelled and part louvered or glass 8mm thick ( for all sizes ) Main frame shall be made out of Hollow extruded sections of size 100mm x 75mm x 14 gauge. The louvers shall be made of 5.5mm thick wire glass slided inside suitable aluminum 14 gauges channels fixed to main frame by 2 nos. 4 mm aluminum rivets fixed at 45 deg etc. complete.	M2	25		-
85	Making pockets in Brick Masonry / PCC / RCC at all levels on the vertical and horizontal faces with necessary staging as required to fix anchor bolts / inserts (Supplied by Tata free of cost) and Grouting the pockets with 1:1 cement mortar after placing the bolts / inserts and finishing the surface either smooth or sand faced as required upto 200 mm square & depth upto 300mm	NO	20		-
86	Providing and fixing CI rain water pipes conforming to ISI with bends clamps etc., as directed.				-
87	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 100mm Dia.	M	35		-
88	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 150mm Dia.	M	35		-
89	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 200mm Dia.	M	35		-
90	Providing all the materials & fixing corrugated GI Sheet 16 guage including GI screws, GI bolts, bitumen washers on partition, roof or any other place including cutting, screwing etc. complete at all level including scaffolding.	M2	250		-
91	Providing , stretching and fixing chain link fencing 2" square and of gauge 10 (bare metal thickness) on angle posts with heavy duty GI split pins etc. in position complete as directed at all Heights including steel scaffolding.	M2	3000		-
92	Stretching and fixing chain link fencing 2" square and of gauge 10 (bare metal thickness) on angle posts with heavy duty GI split pins etc. in position complete as directed at all Heights including steel scaffolding. (Only Chain link shall be supplied by the Owner).	M2	200		-
93	Providing and fixing reinforced barbed wire tape (RBT) (2.6mm) thick single wire along the boudary wall / fencing on angle iron post with all necessary fitting such as welding of nuts, bolts, clips, split pins, TSP & such etc.complete	M	2000		-
94	Providing and fixing G I barbed wire of 10 guage along the boudary wall / fencing on angle iron post with all necessary fitting such as welding of nuts, bolts, clips, split pins, manpower etc.complete	M	1000		-
95	Providing and fixing concertina coil of 610 mm dia., 80 Nos. of circles, 200 Nos. of clips, hot dip galvanized. The wire shall be of 12 SWG tensile wire, covering 10 RM with one coil, each RM will have 8 Nos. of circles, including labour, fixing in position on existing V shaped angles including 2 nos. of guard wires and painting with 2 coats of Bus green paint complete at all heights including scaffolding.	M	500		-
96	Providing & fixing Broken glass pieces over coping on compound walls including providing ladders, scaffolding etc. complete as directed Ave. width 300 MM	M2	500		-
97	Hiring JCB with operator & helper including fuel and carrying out the work as directed by Owner's site manager.	shift	30		-
98	Hiring Poclain with operator & helper including fuel and carrying out the work as directed by Owner's site manager.	Shift	10		-
99	Providing ,Cutting and fixing HDPE pipe inserts 140 mm dia	M	35		-
100	Providing ,Cutting and fixing HDPE pipe inserts 200 mm dia	M	35		-

101	Supplying, fabricating and erecting Tubular Hand railing of 32 mm dia. NB medium class, SS pipes 304 mat finish /brush steel finish consisting of one SS rail and connecting with wall with all necessary SS bends, SS tee joints, SS fixtures, SS fittings, anchor bolts 6 mm dia and embedded in wall, etc. The assembly should be sturdy and with smooth surfaces at joints/ junctions. All SS sections, pipes etc. to be supported with documents for the quality and only SS sections and accessories shall be paid under this item	MT	1		-
102	S S Railing Supplying, fabricating and erecting Tubular Hand railing of 32 mm dia. NB medium class, SS pipes 304 mat finish/brush steel finish consisting of double ss rail with top ss rail 1 Mtr above floor level, middle rail at center and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary ss bends, ss tee joints, ss fixtures, ss fittings, anchor bolts including 6mm thick and embedded in ground, 75mm high toe guard at bottom etc.	M	100		-
103	Supplying, fabricating and erecting C class GI Tubular Hand railing of 32 mm dia. NB light class, consisting of double GI rail with top GI rail 1 Mtr above floor level and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary ss bends, GI tee joints, GI fixtures, GI fittings, anchor bolts including 6mm thick and embedded in ground, 75mm high toe guard at bottom etc. including connecting one coat of primer and two finish coats of synthetic enamel as directed. Note: Material to be provided by the contractor."	M	200		-
104	Supplying, fabricating & erecting Tubular Handrailing of 32 mm dia. N B, medium class, M S Pipes conforming to IS - 1239 of flush weld constructions & consisting of double rail with top rail 1 Mtr above floor level , middle rail at center and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary bends, tee joints, fixtures fittings, 75mm high toe guard 6mm thick at bottom, anchor bolts etc. including 1 shop coat of Shalimar or approved make red oxide primer paint conforming to IS 2074 and second coat of primer after completion of erection followed by two coats of finishing paints of approved make, colours and conforming to IS 2239 etc. complete as directed.	m	100		-
105	Providing and fixing powder coated MS wire mesh( 22 gauge) with aluminum frame etc. complete	M2	18		-
106	Providing and fixing powder coated SS wire mesh with aluminum frame etc. complete	M2	18		-
107	Providing and fixing powder coated GI mesh( 22 gauge) with aluminum frame etc. complete	M2	18		-
108	Providing & fixing Aluminium louvered POWDER COATED windows(fixed) conforming IS:1868. Main frame shall be made out of Hollow extruded sections of size 100 mm x 75 mm x 14 gauge. The louvers shall be made of 5.5 mm thick wired glass slid inside suitable aluminium 14 gauge channels fixed to main frame by 2 nos. 4 mm aluminium rivets fixed at 45 Deg.etc. complete.	M2	18		-
109	Providing, Fabricating and erecting MS gates consisting of MS angles framework (internal & external) using ISA 65x65x6 or 75x75x6 with 6mm to 8mm thk. MS joining plates, including chain-link stretched (8 gauge) tack welded over the framework with necessary hinges, locking arrangement including applying synthetic enamel paint of approved make over one coat of primer. Contractor shall use his own welding set, gas cutting set, gas, electrodes and other accessories required to complete the entire job. Rate is inclusive of all materials to be procured by the contractor.	M2	30		-
110	Providing, Fabricating and erecting MS gates consisting of MS hollow rectangular or square box sections with 6mm to 8mm thk. MS joining plates, including welding of sections as per design approved by the Owner. Fabricating the framework with necessary hinges, locking arrangement including applying synthetic enamel paint of approved make over one coat of primer. Contractor shall use his own welding set, gas cutting set, gas, electrodes and other accessories, steel scaffolding required to complete the entire job. All hollow box steel section shall be of primary manufacturer and confirm to IS 4923 requirements	MT	2		-
111	Steel work in built up tubular trusses including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete. Hot finished welded type tubes.	KG	1000		-
112	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 120 mm	EA	100		-
113	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 160 mm	EA	100		-
114	Dismantling / cutting and stacking Rolling Shutters with / without Wicket Gates including removal of angle supports etc, as directed.	M2	20		-
115	Supplying and fixing mechanical gear type rolling shutters, manually operated by means of winding handle and the shutter made out of 18 gauge x 3" (1.10 mm to 1.25 mm) mild steel laths of convex corrugation, complete with build up 4" x 1" side guides, built up bottom rails with angle iron at bottom and flat iron at top, heavy brackets, extra strong door, suspension shaft made out of new pipes leaded with high tension steel springs of best Indian spring steel wire, locking arrangements handles, painted with one coat of primer paint complete in best workmanship with top cover 3 Nos. bearing and including loading, unloading and transportation at our site.	M2	100		-
116	Supplying and fixinghand operated type rolling shutters, manually operated by means of winding handle and the shutter made out of 18 gauge x 3" (1.10 mm to 1.25 mm) mild steel laths of convex corrugation, complete with build up 4" x 1" side guides, built up bottom rails with angle iron at bottom and flat iron at top, heavy brackets, extra strong door, suspension shaft made out of new pipes leaded with high tension steel springs of best Indian spring steel wire, locking arrangements handles, painted with one coat of primer paint complete in best workmanship with top cover 3 Nos. bearing and including loading, unloading and transportation at our site.	M2	100		-
117	Providing all the materials and fixing Aluminum coated Name board of size 2.5mx1.2m (approx.) with stainless steel letters of 10" x 3" size with company's logo.	NO	6		-

118	Supplying & fixing in position anchor bolts with washers & nuts of required shape & size 6mm to 30mm dia. With necessary thread length including fixing templates etc. (Templates will not be paid for).	kg	200		-
119	Supplying and placing in position Mechanical Anchor fasteners 16 mm dia, 140 mm long including drilling the holes .(HST,HILTI make).	NO	140		-
120	Supplying and placing in position Mechanical Anchor fasteners 12mm dia. 140mm including drilling the holes .(HST,HILTI make).	NO	70		-
121	Providing and fixing single or double shuttered fully panelled POWDER COATED doors conforming to IS:1868. Main frame shall be made out of aluminum tubes of size 100mm x 45mm x 14 gauge. The shutters shall consist of 45mm x 45mm x 14 gauge top rail and styles, 95mm x 45mm x 14 gauge bottom rail and panelled with Marine plywood sandwiched between 18 gauge Aluminum sheet on both sides including necessary locking arrangement, handles on one or both the shutters, weather strip, floor springs for one or both shutters, tower bolts for one shutter etc. with pivots for each shutter including fixing necessary "PUSH PULL" signs, with rubber woolen felt sealing etc. complete. Aluminium sections to be of Jindal / Indal make	M2	35		-
122	Providing and fixing fully glazed sliding POWDER COATED aluminum windows. Outer frame shall be of size 100 mm x 45 mm x (14 gauge) anodized section of min. weight 6 Kg / 12' length. The 3 track Box Section (20 mm Series) Indal / Jindal shall consist of a) Bottom rail size 90 mm x 45 mm (14 gauge) of min. weight 5.5 Kg / 12' length. b) Sides and top rail 90 mm x 32 mm (15 gauge) of min. weight 3 Kg / 12' length. Glass shall be 6mm thick. rubber woolen felt sealing etc. complete.	M2	35		-
123	Providing and fixing CP jet spray size 12mm dia. of approved make with ISI mark	NO	20		-
124	Providing and fixing Basin mirror of size 600mmx600mm of approved make and colour including all material, tools, tackles complete	NO	20		-
125	Providing and fixing 100 x 80mm CI deep seal Nahani Trap of insect proof type with CP heavy grating and frame	EA	15		-
126	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 12mm Dia.	M	70		-
127	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 19mm Dia.	M	70		-
128	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 25mm Dia.	M	70		-
129	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 38mm Dia.	M	70		-
130	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 50mm Dia.	M	70		-
131	Providing and fixing 100 x 80mm PVC deep seal Nahani Trap of insect proof type with PVC heavy grating and frame as directed	No	7		-
132	Providing and fixing water closet squatting pan (Indian type W.C. pan ) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required : White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests (HINDUSTAN/Parryware MAKE)	EA	7		-
133	Providing and fixing white vitreous china pedestal type European water closet (Hindware make:Constellation set white) with seat & lid,10 litres flushing cistern & manually controlled device conforming to the IS-7231 with all fittings & fixtures complete including cutting and making good the walls and floors wherever required.WC pan with ISI marked white sloid plastic seat & lid heavy duty (HINDUSTAN/Parryware MAKE)	EA	50		-
134	Providing lip type urinal and flushing valve and bottle trap, lead and GI pipe connections overflow outlet pipes with mosquito proof cover including providing all the materials. etc. complete. (HINDUSTAN/Parryware MAKE)	EA	70		-
135	Providing and fixing stone ware gully traps of 9"x9" size as directed.	EA	70		-
136	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 12mm Dia.	EA	70		-
137	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 19mm Dia.	EA	70		-
138	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 25mm Dia.	EA	70		-
139	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 50mm Dia.	EA	70		-
140	Providing & Laying salt glazed stoneware pipes including providing all the materials and cement jointing but excluding excavation and backfilling including 50mm thk.M100 bedding below joints for 150mm Dia.	Rm	70		-
141	Removing, providing & replacing the broken manhole covers heavy duty CI, ISI marked with frame including finishing the top masonry with cement mortar as directed 225mm X 300mm Manhole covers should be of munal corporation approved.	EA	70		-
142	Removing, providing & replacing the broken manhole covers heavy duty CI, ISI marked with frame including finishing the top masonry with cement mortar as directed 900mm X 600mm - Manhole covers should be of munal corporation approved	NO	70		-
143	Removing , providing & fixing white glazed wash basin flatback confirming to IS 2556 (Part IV) of approved make including providing wash basin, C.I brackets, fixed to the wall with rawl plug bolts & screws and painted in two coats of white zinc paint over a coat of red oxide primer,with 15mm C.P. pillar tap as per IS 1795 (1 No.) of approved make, plug & C.P chain, 50mm dia. mosquito proof gratings, 32mm dia. C.P. waste pipe, brass stop cock as per IS 781 of bottle trap with C.P pipe pieces upto wall or floor level plus 40mm lead, waste pipe embedded floor from 32mm CP waste extension pipe to the CI waste shaft on the outside wall, complete with brass union and plumbers wiped soldered joints as directed with necessary cleaning eyes including cutting holes and chasses in the wall and making good the same in CM (1:4) etc. complete as directed. (Hindustan/ Parryware make .) Size 580mm X 450mm	EA	70		-

144	Providing and fixing 31 mm dia heavy duty CP Bottle trap matching with the existing if any	EA	70		-
145	Providing and fixing heavy dutyC P Flush valve for flat back Urinals complete matching with existing if any.	EA	70		-
146	Providing and fixing ceramic white sink including all connections, brackets,wast cupling, 32mm PVC pipe complete as directed. (Hindustan or Cera) Size 0.45m X 0.6m	EA	70		-
147	Supplying and fixing Stainless steel sink made out of best quality Stainless steel sheet of 16 guage conforming to IS 5522 having 1 1/4 " hole for drain pipe at centre of bottom plate with Stainless steel basket stainer 1 1/4 ", brass waist coupling , 1 1/2 " moulding all around and as directed for sizes 0.610 M x 0.460 M. Nirali or equivalent approved make.	EA	70		-
148	Providing and fixing PVC seat cover to European WC matching with the existing if any	EA	70		-
149	Providing and fixing heavy duty CP pillar cock - Pressmatic type to wash basin size 15mm of approved ISI make as directed.	No	70		-
150	Providing and fixing heavy duty CP Jali for nahni trap as directed of size 100mm dia.	EA	70		-
151	Providing and fixing 100mm dia CP shower with 300mm long arm .	EA	70		-
152	Providing and fixing heavy duty CP concealed <b>bib cock</b> size 12mm dia. of approved make with ISI mark as directed.	EA	70		-
153	Providing and fixing heavy duty CP concealed <b>Angle cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	70		-
154	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 12mm dia. of approved make with ISI mark as directed.	EA	70		-
155	Providing and fixing heavy duty PVC soap dispenser of standard size .	EA	70		-
156	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 20mm dia. of approved make with ISI mark as directed.	No	70		-
157	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 50mm dia. of approved make with ISI mark as directed.	No	70		-
158	Removing / dismantling old corroded GI pipe line size 12mm to 50mm dia. Work includes transportation to company store etc.	M	84		-
159	Providing all materials, services, tools, tackles, equipment, transport etc. for carrying out misc. plumbing repair works and Replacing float valve of flush tank size 12.5 mm dia.	EA	20		-
160	Providing and installation heavy duty jet spray including PVC Connector of approved make with ISI mark as directed.	EA	20		-
161	Providing and fixing heavy duty PVC high level / low level flush tank of standard size including all necessary fitting and fixtures of approved make with ISI mark as directed.	EA	20		-
162	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 12 mm dia.	No	20		-
163	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 19 mm dia.	No	20		-
164	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 25 mm dia.	No	20		-
165	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 39 mm dia.	No	20		-
166	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 50 mm dia.	No	20		-
167	Providing and fixing of PVC pipe for down take for 100 mm dia.	RM	35		-
168	Providing and fixing of PVC pipe for down take for 150 mm dia.	RM	35		-
169	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 12 mm dia	M	175		-
170	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 19 mm dia	M	175		-
171	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 25 mm dia	M	175		-
172	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 32 mm dia	M	175		-
173	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 38 mm dia	M	175		-
174	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 50 mm dia	M	175		-
175	Providing all tools & services for removing, rerouting and Refixing existing GI pipeline of 12 to 25 mm dia including all fittings required for the same.	M	70		-
176	Providing all tools & services for removing, rerouting and Refixing existing GI pipeline of 31 to 50 mm dia including all fittings required for the same.	M	70		-
177	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 12 mm dia	M	10		-

178	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 19 mm dia	M	10		-
179	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 25 mm dia	M	10		-
180	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 32 mm dia	M	10		-
181	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 40 mm dia	M	10		-
182	Providing and fixing of two way bib cock sicko, including all tools & tackles	No	10.00		-
183	Providing and fixing heavy duty CP concealed two way <b>bib cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	5.00		-
184	Providing and fixing heavy duty CP concealed two way <b>Angle cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	30.00		-
185	Providing and fixing heavy duty CP concealed two way <b>stop cock</b> size 12mm dia. of approved make with ISI mark as directed.	NO	30.00		-
186		NO	30.00		-
187	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	Litre	20000		-
188	Making chases upto 50 mm x 50mm in walls including making good and finishing with matching surface after housing G.I. Pipe etc.	M	500		-
189	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm) with necessary accessories and screws etc. complete. This item will cover a performance guarantee of 1 year, during this Guarantee period if any malfunctioning is observed the same shall be attended by the vendor within 2 day	EA	30		-
190	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete. This item will cover a performance guarantee of 1 year, during this Guarantee period if any malfunctioning is observed the same shall be attended by the vendor within 2 day	EA	30		-
191	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	Ea	50		-
192	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete. Size 50 mm	Ea	50		-
193	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately). Second class teak wood	M3	10		-
194	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (Only area of glass vision panel made in door shutter will be measured) : Rectangular or square	M2	20		-
195	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to steel windows by welding.	Kg	1000		-
196	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance $\pm 1$ mm), with wall thickness 2.0 mm ( $\pm 0.2$ mm), Extruded section profile size 48x40 mm with corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm ( $\pm 0.1$ mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame, Providing and fixing to existing door frames. 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm 0.3$ mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm 0.1$ mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification including necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places , complete as per manufacturer's specification and direction of Engineerin-charge.	M2	30		-
197	Providing and fixing stainless steel tower bolts with necessary screws etc. complete. 150 mm on existing door	EA	20		-
198	Providing and fixing stainless steel tower bolts with necessary screws etc. complete. 200 mm on existing door	EA	20		-
199	Providing and fixing stainless steel sliding door bolt with necessary screws etc. complete. 200 mm on existing door	EA	20		-
200	Providing & fixing stainless steel Door stopper with necessary screws etc. complete. Twin rubber stopper. on existing door	EA	20		-
201	Providing and fixing stainless steel door handel with necessary screws etc. complete 150 mm on existing door	EA	20		-
202	Providing and fixing stainless steel door handel with necessary screws etc. complete 150 mm on existing door	EA	20		-

203	Replacing broken window glasses (6 mm thk.) including fixing pins, weather bar and putties of approved quality (including scaffolding if required ) etc. complete.	M2	45		-
204	Providing and fixing 35 to 38 mm thick commercial flush door shutter with 1.5 mm thick laminate on both side of approved make and shade. Rate shall also include provision of 10 mm thick teak wood beading around the shutter, making it of appropriate size of existing door shutter, all the locking accessories, aldrops on both sides heavy duty brass hinges, heavy duty door closer hyper make sleek model, heavy duty 5" brass handles polishing or painting complete as directed. shutters to be fixed in existing frames.	M2	20		-
205	Providing and fixing 50 mm thick commercial flush door shutter with 1.5 mm thick laminate on both side of approved make and shade. Rate shall also include provision of 10 mm thick teak wood beading around the shutter, making it of appropriate size of existing door shutter, all the locking accessories, aldrops on both sides heavy duty brass hinges, heavy duty door closer hyper make sleek model, heavy duty 5" brass handles polishing or painting complete as directed. shutters to be fixed in existing frames.	M2	20		-
206	Providing, Erecting and Fixing Aluminum POWDER COATED fixed windows conforming to IS:1868. Main frame Shall be made out of hollow extruded sections of size 100mm*75mm*14mm gauge and panelled with 50 mm x 45 mm x 14 gauge top and bottom rails and styles, approved 5.5mm thick clear or opaque glass. All aluminum sections will be finished with anti corrosive rust proof powder coating of approved quality and shade all as per IS codes or as directed.The rate shall be include of filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly.	M2	35		-
207	Providing and Fixing Grid False Ceiling as per specificatiProviding and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. a) with Dune 600x600x16 RH-99 tiles (Tegular Edge./Board edge/Microlook Edge.) of Armstrong make. The rates shall be inclusive for making of opening for electrical fittings and AC blower and return air with appropriate supporting members. Only plan area will be payable. No deduction shall be made for opening left for AC blower and electric fittings and no payment shall be made for for providing additional supports around openings..	M2	35		-
208	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long , G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with: a) 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I.	M2	50.00		-
209	Repair to existing Gypsum board false ceiling with 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete but excluding the cost of painting as per direction of E-I-C	M2	50.00		-
210	Providing and fixing Anti static false flooring with load bearing capacity of 1200 kg concentrated load and 2000 kg /sqm distributed load, of Unitile Everest or equivalent consisting of: Stringers made out of die pressed channels 25x25x25 mm with two die pressed notches at the two ends to snap fit to the jack head for 300 mm height	M2	50		-

211	Providing, Erecting and Fixing Aluminum Anodized fixed partition fully glazed confirming to IS:1868. Main frame Shall be made out of hollow extruded sections of size 100mm*75mm*14mm gauge and panelled with approved 5.5mm thick or opaque glass. All aluminum sections will be finished with anti corrosive rust proof coating of approved quality and shade all as per IS codes or as directed. The rate shall be include of filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly as directed (Heavy duty sections)	M2	14		-
212	Providing & fixing upto 12 mm dia, 100 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
213	Providing & fixing upto 12 mm dia, 140 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
214	Providing & fixing upto 16 mm dia, 100 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
215	Providing & fixing upto 16 mm dia, 140 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
216	Making chases in walls for replacing, repairing GI conduits at all levels on vertical and horizontal faces with necessary staging to conceal GI conduits including finishing back the surface either smooth or sand faced over Brick masonry, PCC, RCC ( laying of conduit by other agency Size upto 100mm x 75 mm)	M	35		-
217	Providing, placing and fixing <b>profile pre-color coated galvalume RMP sheets or equivalent of 0.5mm</b> total coated thickness to match existing shade (bare galvalume thickness 0.47mm), <b>trough type</b> , zinc aluminum alloy coated (zinc aluminum coating not less than 150g/sqm ), MS high tensile sheet having minimum yield strength of 550MPa including coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting and DFT 5 microns over 5 micron primer on internal surface of sheeting and including all connections and matching fixtures and accessories such as but not limited to J or L bolts & hooks (8 mm, polymer coated), nuts with polymer washers, self tapping screws, protective polymer cap of matching color for bolts, should be supplied in suitable length as desired by Engineer in- charge. The sheet shall be fixed using self drilling /self tapping GI coated screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, etc., complete as per manufacturers recommendations for Sheeting for roof/Side etc.	M2	5000		-
218	Providing, placing and fixing <b>plain pre-color coated galvalume RMP sheets or equivalent of 0.5mm</b> total coated thickness to match existing shade (bare galvalume thickness 0.47mm), <b>plain sheet for flashing , ridges</b> , zinc aluminum alloy coated (zinc aluminum coating not less than 150g/sqm ), MS high tensile sheet having minimum yield strength of 550MPa including coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting and DFT 5 microns over 5 micron primer on internal surface of sheeting and including all connections and matching fixtures and accessories such as but not limited to J or L bolts & hooks (8 mm, polymer coated), nuts with polymer washers, self tapping screws, protective polymer cap of matching color for bolts, should be supplied in suitable length as desired by Engineer in-charge. The sheet shall be fixed using self drilling /self tapping GI coated screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, etc., complete as per manufacturers recommendations for Sheeting for roof/Side etc.				-
219	<b>P/F of corrugated GI Sheets</b> Providing & fixing 16 gauge corrugated GI sheet on roof & cladding with GI bolts, nuts, washers, sealant on bolt etc.	M2	100		-
220	<b>FRP Sheets</b> Providing & fixing new & approved quality <b>corrugated</b> FRP sheets of green colour, thickness 3 mm with new GI bolts, nuts, washers etc.	M2	100		-
221	Providing and fixing fully glazed sliding POWDER COATED windows. Outer frame shall be of size 100 mm x 45 mm x (14 gauge) anodised INDAL section of min. weight 6 Kg / 12' length. The 3 track Box Section (20 mm Series) Indal shall consist of a) Bottom rail size 90 mm x 45 mm (14 gauge) of min. weight 5.5 Kg / 12' length. b) Sides and top rail 90 mm x 32 mm (15 gauge) of min. weight 3 Kg / 12' length, and panelled with approved 5.5mm thick clear or opaque glass. including civil works for filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly.	M2	100		-
222	Providing all materials, tools, service etc. including providing and erecting scaffolding at all heights and carrying out Plaster of Paris punning (average 6 mm thk.) to existing walls as well as newly plastered surfaces in perfect line and plumb to prepare them to receive Acrylic emulsion paint.( Walls and Ceiling ) (Internal surfaces) including necessary surface preparation if required	M2	350		-
223	Providing all materials ,tools, tackles such as wire brush, putty blade,sand paper etc. for removing all loosely adhering material from the internal surface of existing wall, ceiling , plastered surface etc. & ensuring substrate should be clean, free from dust, grease & loose material. Moisten the wall with sufficient quantity of clean water prior to application of 1st coat of Birla White Wallcare Putty or equivalent. Allow the 1st coat surface to dry for at least 3 hrs after that rub the surface gently with the putty blade in order to remove all loose particles. Apply 2nd coat of putty, allow the surface to dry for 10-12 hrs after that rub the surface gently with the putty blade in order to remove all loose particles. Total thickness of the coats should be limited to average 1.5 mm thk.This also includes carrying out the work in perfect line and plumb & prepare them to receive paint.	M2	350		-
224	Providing & laying hume pipe 150 mm Dia confirming to IS 458 (Class NP3) in line and level in required slope or as directed including providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), M 10 concrete below joints but excluding excavation .	M	50		-

225	Providing & laying hume pipe 300 mm Dia confirming to IS 458 (Class NP3) in line and level in required slope or as directed including providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), M 10 concrete below joints but excluding excavation .	M	50		-
226	"Providing all materials, tools, tackles & services for Rehabilitation of RCC Structures as following a.) Repair damaged concrete members including stripping dilapidated and loose concrete, scrapping reinforcement with wire brush and cleaning the same with speciality chemicals( Rusticide SS ) in one or more coats as per manufacturer's specifications. b.) Providing and applying speciality chemicals ( Polyalk Fixoprime ) in recommended proportions to steel bars & exposed concrete in one or more coats as per manufacturer's specifications. c.) Providing and applying speciality chemicals ( Polyalk EP ) in recommended proportions with 1:4 mortar with quartz sand in one or more coats for average thickness of 25 mm as per manufacturer's specifications etc complete as directed.	M2	18		-
227	<b>Protection of RCC Structures by Rehabilitation</b> a)Providing all necessary materials & services to repair damaged concrete members including stripping dilapidated and loose concrete, scrapping reinforcement with wire brush and cleaning the same with speciality chemicals (Rusticide SS) in one or more coats as per manufacturer's specifications. b.) Providing and applying specialty chemicals (Polyalk Fixoprime ) in recommended proportions to steel bars & exposed concrete in one or more coats as per manufacturer's specifications. c.) Providing and applying specialty chemicals (Polyalk EP) in recommended proportions with 1:4 mortar with quartz sand in one or more coats for average 50 mm thickness as per manufacturer's specifications"	M2	35		-
228	Providing and fixing C class GI water pipes, confirming to IS:1239, and galvanized as per IS-4736, in vertical or horizontal positions at all heights including cutting, treading, bending and jointing with necessary C(Heavy) class GI fittings, such as tees, bends, unions, elbows, reducers, couplings, sockets flanges, plug ends, check nuts, etc. cuttings holes, chases in the walls or floors and making good the same with CM 1:4 providing necessary GI malleable clamps and supports and testing the line as specified etc. complete (rate inclusive of fittings and special) 75 mm dia	M	50		-
229	Providing and fixing C class GI water pipes, confirming to IS:1239, and galvanized as per IS-4736, in vertical or horizontal positions at all heights including cutting, treading, bending and jointing with necessary C(Heavy) class GI fittings, such as tees, bends, unions, elbows, reducers, couplings, sockets flanges, plug ends, check nuts, etc. cuttings holes, chases in the walls or floors and making good the same with CM 1:4 providing necessary GI malleable clamps and supports and testing the line as specified etc. complete (rate inclusive of fittings and special) 100 mm dia	M	18		-
230	Supplying & laying of Siporex block for wall 230mm thick and above in cement mortar(1:4) including scaffolding at all heights, curing, raking joints, etc.	M3	7		-
231	Making core cuts in RCC wall/slab etc. up to 100mm to 350mm Thickness 250 mm dia	NO	10		-
232	Making core cuts in RCC wall/slab etc. up to 100mm to 350mm Thickness 150 mm dia	NO	10		-
233	Supplying, fabricating, transporting to site and erecting GI grating in position hot dip galvanized members / structures fabricated as per approved drawings including galvanizing the sections (Zinc coating minimum 80-100 micron DFT) / accessories as per specifications and touch up zinc paint after galvanizing in areas where needed / approved after erection.(Grating size 500shall be as per drawing.All gratings will be supplied by Agency. Agency shall use his own all the tool & tackles to complete the entire work, as per the direction of the site engineer. Agency must approve the sample of grating by TATA Power representative before manufacturing of all the gratings.	Ton	3		-
234	Carefully opening the cracks in plaster, cleaning the cracks with electrical air blower/water & filling the cracks with polymer modified cementitious mortar in proportion 1:5:15 ( i.e. Polymer: cement: well graded quartz sand by wt.) including polymer bonding coat & seal coat, curing etc. complete. Note: Width of cracks upto 6 mm and depth upto 20mm.	M	18		-
235	Providing material, labor & services for oiling and greasing of shutters. Rates are inclusive of providing steel scaffolding	No	21		-
236	Providing all material, cleaning the roof surface and carrying out 3mm thick membrane (approved make) water proofing treatment as under below 1) Filling the cracks, Holes etc., with Tar Plastic (Cold Water Proofing Compound) 2) Applying oil primer T-10 UNDER ENTIRE SURFACE (0.3 liters per sqm) 3) Applying 3 MM thk. approved make modified water proofing membrane by torch welding with 100mm*100mm side and end laps without airgases 4) Applying one coat of bituminous base silver shield paints over entire work of membrane Note : Contractor should give 5 years guarantee.	M2	14		-
237	Providing all tools, tackles & equipment's necessary for trimming of tree branches inclusive providing and maintaining scaffolding till trimming activity, provision of fall arresting jali, making access to branches, ladder, cutting tools, crane if required, etc. complete as per requirement of job and instructions of engineer in charge. The rate should be inclusive of trimming tree, collecting & stacking debris near site & dispose off the debris in approved ground. Statutory payment will be paid by the Owner against official demand notes received from statutory bodies.	No	250		-
238	Cleaning of septic tank , including chambers with gully sucker & providing plumbing services including all required tools, tackles, materials & fixtures including loading, unloading & transpotation up of sewerage to identified disposal site etc complete as directed,	No	14		-
239	Cleaning of choked sewage chambers by providing plumbing services including all required tools, tackles, materials & fixtures including loading, unloading & transpotation up of sewerage to identified disposal site etc complete as directed,	Ea	14		-
240	Making soak pit 2.5 m diaeter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diaeter, 1.8 m long complete as per standard design. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	5		-
241	Cleaning of O/H water storage tank up to 1000 ltrs. i/c cleaning with potassium permanganate / bleaing powder and finally with clear water complete.	EA	20		-

242	Providing all necessary material, tools, tackles & services for supplying & laying MS grating of sizes and of the design as per drawing approved by Owner,	MT	2		-
243	Providing & applying two coats of Elastomeric coating having 200-300% elongation over a coat of primer over properly prepared plaster surface including scrapping all loose material on existing plastered surface etc.	M2	100		-
244	Supplying, Providing and laying, un-coursed random rubble masonry in cement mortar 1:5 with approved local stones of good quality for walls / footings, etc. and as fill under foundations in true line and levels, including curing, de-watering wherever necessary, raking of joints etc. complete for work below ground/grade level at all depths and grade level up to plinth etc.,	M3	21		-
245		M2	35		-
246	Making khurras 45 x 45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x 1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete	EA	20		-
247	Providing and fixing interlocking concrete paver blocks of 80mm thk. of M40 grade. Concrete paver blocks shall be uniformly shaped (monolithic #single layer precast concrete blocks) of specified color and pattern as per technical specification, placed on avg. thickness of 50 mm uniformly graded river sand cushioning with proper compacting with mechanical compactor with the proper level, grade and camber etc. complete as directed. The side joints / Open ends should be filled / sealed by M-25 grade concrete as required etc. he testing of paver blocks shall be arranged by the contractor at the time of approval and during execution of job at their own cost.	M2	100		-
248	<b>Providing 60 feet long Man lifter upto 60 feet long for civil work including</b> providing services for civil work irrespective of height and location of the work complying with all safety rules and procedures of company practices followed in company complete as directed by the Owner	day	75		-
249	Providing services for removal of choke from sewage line using municipal gang with sucking machine	EA	50		-
250	Providing all your materials , tools tackles marking and painting of strip, width 75mm to 150 mm, for road / passage marking with synthetic enamel, brushe, solvent, tools and tackles, skilled painter for cleaning and preparing the surface by scrapping sand papering to remove loose scale, making the surface plain and marking the strip, painting two coat over a coat of primer in perfect strip and painting two coat in perfect alignment marking	M2	50		-
251	Providing all your materials , tools tackles marking and painting of speed breaker, zebra crossing, kerb stones, skilled painter for cleaning and preparing the surface by scrapping sand papering to remove loose scales, grease, making surface plain and marking the strips and painting in two coat of synthetic enamel paint over a coat of primer in perfect alignment	M2	20.00		-
252	Providing and fixing of roller blind for window, providing all equipment, material, tools, tackles etc. for fixing blinds for windows of approved make and shade etc.	M2	50		-
253	providing and fixing of blind, type: vertical, width: 75 mm, providing all equipment, material, tools, tackles etc. for fixing blinds of approved make and shade etc.	M2	50		-
254	Providing and fixing of sun control film of approved make like Garware or equivalent including providing all equipment, material, tools, tackles etc. for fixing sun film without any air bubbles / scratches.	M2	50		-
255	Providing and fixing fibre sheet of 3 mm thickness inclusive of all fastners, nuts, bolts etc and inclusive of labour complete	NO	10		-
256	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 100 m outside of periphery of the area cleared.	M2	7.00		-
257	Supplying, diluting and injecting chemical emulsion PRE CONSTRUCTIONAL ANTI- termite treatment and creating a continuous chemical barrier under and all around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surrounding of pipes and conduits etc. complete as per IS codes & specifications (plinth area of the building at ground floor only shall be measured for payment) a) Chlorphyriphos Emulsifiable concentrate 20% with 1% concentration Note : Contractor shall have to furnish from the specified agency carrying out the work under anti-termite treatment a written corporate guarantee on non-judicial stamp paper of Rupees 100 in favour of Owner for the satisfactory performance of the treatment for a period of ten years	M2	200.00		-
258	Supplying, diluting and injecting chemical emulsion POST CONSTRUCTIONAL ANTI-termite treatment creating a continuous chemical barrier i/c all the wood work, door frames, wooden cabinets, almiraahs, wall mounted cabinets, work stations, wooden partitions etc. (floor area of the building only shall be measured for payment) a) Chlorphyriphos Emulsifiable concentrate 20% with 1% concentration. Note : Contractor shall have to furnish from the specified agency carrying out the work under anti-termite treatment a written corporate guarantee on non-judicial stamp paper of Rupees 100 in favour of Owner for the satisfactory performance of the treatment for a period of ten years	M2	200.00		-
259	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ±1mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineerin-charge. Extruded section profile size 48x40 mm	M	35.00		-

260	Providing and fixing to existing door frames. 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm$ 0.3 mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm$ 0.1 mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places	M2	10.00		-
261	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 120 mm	EA	100.00		-
262	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 160 mm	EA	100.00		-
263	Providing and fixing IRC fabric (welded mesh) of size 35x75 mm of required guage to the frame of MS angles, channels, tees, flats etc. at all floor levels including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer as required. In frames, gates etc. (Cost of MS frame will be paid separately). Fixed to steel frames by welding.	Kg	5000.00		-
264	Providing and fixing stainless steel ( Grade 304) gate, grill, railing etc. made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, including fixing the gate with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose weight of stainless steel members shall be considered including fixing s.s. accessories such as nuts, bolts, fasteners etc.)	Kg	500.00		-
265	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. Single socketed pipes including all fittings, clamps, spacer etc.. 110 mm dia	M	50		-
266	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. a) single socketed pipes. including all fittings, clamps, spacer etc. 150 mm dia.	M	50		-
267	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long , G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with: a) 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I.	M2	50		-
268	Providing and fixing Vitreous china Urinal partition of standard design and required color, of Hindustan / Parryware or eq. make using screws etc complete	EA	10		-
269	Providing and fixing 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with CP brass screws and washers complete.	EA	10		-
270	Providing and fixing CP brass Jet and accessories to english type WC of approved quality and make complete.	EA	10		-
271	Providing and fixing CP brass bottle trap of approved quality.	EA	10		-
272	Providing and fixing low height opaque partition 54mm thick from floor to desired height (below false ceiling) consisting of 45x45mm 1st class kail wood frame work with a fire retardant paint applied on it forming frame work at 450-600 C/C nominal in both directions fixed rigidly in flooring and side support by screws/GI cleat etc. The frame work shall have one side 8/9mm thick commercial ply and gap in frame work filled with 45mm thick up tuiga mineral fibre wool with a density of 50 kg/M <sup>3</sup> , exterior sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kal wood runner and making provision for laying conduits switches box with 8 x 75 mm teak wood or laminated skirting, polishing etc complete.	M2	12.00		-

273	Providing and fixing suspended Gypsum board ceiling (straight, vertical & curved) consisting of fixing GI perimeter channels of 27mm x0.5mm thick having one flange of 20mm and another flange of 30mm along with perimeter of the ceiling, screws fixed to RCC/ Brick/foam block walls/ gypsum board partitions with the help of rawl plugs and screws. The suspending GI intermediate channels of size 45x0.55mm th. With two flanges of each from the soffit @1200mm centre with GI hangers of 25mm x 0.5mm thick Fixed to soffit with GI cleat and steel Expansion fasteners and to intermediate channel with GI nut and bolt. Ceiling section of 0.5mm thickness having knurled wedge of 51.5 mm and two flanges of 26mm each with lips of 10.5mm then fixed to the intermediate channel with the help of connecting clips and in direction perpendicular to the intermediate channel at 450mm centers, 12.5mm th. Tapered edge gypsum plaster board (confirming to IS 2095-1982) is then fixed with screws to ceiling section with 25mm dry screws at 230mm centers at the underside of ceiling section framing. Screws to be fixed mechanically either with screw driver or drilling machine with suitable attachment, providing angle beads and edging beads wherever necessary, finishing even appearance. P/f trap doors made of laminated boards with wooden frames, p/f wooden shadow battens (holloc wood, black enamel painted - 25x40mm) at wall peripheries and ends, extra frame work for fixing lights, making cutouts for electrical / HVAC / plumbing works etc. complete.	M2	12.00		-
274	Providing and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. a) with Dune 600x600x16 RH-99 tiles (Tegular Edge./Board edge/Microlook Edge.) of Armstrong make	M2	17.00		-
275	Providing and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. b) with Ultima 600x600x19 RH-95 tiles (Tegular Edge./Board edge/Microlook Edge) Of Armstrong make	M2	12.00		-
276	P/F full ht. in approved pattern opaque / partly glazed (with 5.5 mm thk.glass fixed with lnd class teak wood beading ) partition 63-65 mm thick from floor to false ceiling consisting of 45x45mm 1st class. kail wood frame work with a fire retardant paint applied on it forming frame work at 450-600 c/c in both directions fixed rigidly in flooring and ceiling by screws/GI cleat etc. The frame work shall have on both sides 9mm thick commercial ply and gap in between filled with 45mm thick UP tuiga mineral fibre wool of density 50 kg/M³, exteriors sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kail wood runner and making provision for laying conduits switches boxes with 8 x 75 mm teak wood or laminated skirting , polishing etc complete, as per instruction of Engineer in charge.. (Any frame work beyond partition height shall be paid extra)	M2	12.00		-
277	P/F full ht. in approved pattern 55 mm thick from floor to false ceiling consisting of 45x45mm kail wood wood frame work with a fire retardant paint applied on it forming frame work at 450-600 c/c in both directions fixed rigidly in flooring and ceiling by screws/GI cleat etc. The frame work shall have on one sides 9mm thick commercial ply,exteriors sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kail wood runner and making provision for laying conduits switches boxes with 8 x 75 mm teak wood or laminated skirting , polishing etc complete, as per instruction of Engineer in charge..	M2	7.00		-
278	P/F toilet's & pantry's counters underneath fascia of 300mm wide of desired length made up of 19mm thick commercial Board with 1.0mm laminate on user side and with balancing white on other side with 4 mm second class teak margin on top and bottom end fixed with kail wood batten of cross section 45x45mm along the horizontal length of fascia and of 45x45mm along the two extreme vertical ends, if required, (the cost of frame shall be paid extra) completed in all respect.	M	3.00		-
279	Chipping , cleaning of concrete from columns, beams and slab manually including scaffolding as directed by Engineer – in - charge and disposal of malba with in 50 m lead.	M2	40.00		-

280	Providing & fixing L shaped modular workstation fixed on medium ht partitions (MHPs) of 45mm thk panel based partition system of 1200mm ht having approved quality Aluminium section, rigid framework. The partitions shall have two concealed raceways (at bottom and mid place) in steel and covered in extruded aluminium powder coated and ABS plastic caps. The panel should have a combination of 9mm thk pre laminated soft pin up boards, and white board with matching skirtings and aluminium powder coating top trim on the top of the partition. Glass separator of 8mm thk with polished edge to be fixed between the two work tops. The work top made of 25mm thk pre laminated particle board of approved make and quality and balancing laminate of approved thickness on the unexposed surface. The work top shall be 600mm deep and are to be fixed on the partitions at 750mm ht from the FFL. All the exposed edges to have PVC edge band, the work top should be well matched in profile at corners, etc. (Size 1500 L x 1500mm W x 750mm H.) and Providing pedestal drawer units of overall dimensions of 400mm width, depth 450mm and ht 725mm having 3 drawers with locking arrangement. The inner drawer should be made of pre laminated particle board of 18mm and smooth sliding telescopic arrangement. The pedestal drawer unit shall have 18mm thk pre laminated matching and approved colour. The overall unit shall have adequate provision fixed underneath the work tops at desired locations, thereby also supporting the work tops at such places directly and neatly. with prefixed Keyboard Tray with Telescopic slides made up of ABS plastic body	EA	1.00		-
281	Providing and fixing 45mm thick panel based partition system of 1200mm ht. having approved quality Aluminium section, rigid frame work. The partition shall have two concealed raceways (at bottom and mid place) in steel and covered in extruded aluminium powder plastic caps. The panel should have a combination of 9mm thick pre laminated board, soft pin up board etc. with matching skirtings and aluminium powder coating top trim on the top of the partition complete	M2	1.00		-
282	Providing and Fixing 18mm thick pre laminated gable end fixed below the work top to balance the same. The exposed edges shall be covered and sealed with 2mm thick PVC edge bending	M2	1.00		-
283	P/P circular meeting table of 1500 mm dia - 760 mm(ht) top made up of 19mm thick commercial block board with 2.0mm thk. top veneered, with 25x30mm second class teak moulding, finished in stained spirit polish with water proof melamine finish, resting on circular shape pedestal of 900 dia made up of 50x50 mm hard wood frame work placed at a distance of 400 – 450 mm c/c in both directions, wrapped with 3mm flexible ply in layers, laminated from outer exposed side resting on 100mm wide skirting, complete in all respect.	EA	2.00		-
284	EXECUTIVE TABLE: Providing & fixing in position consisting of the followings:Top made out of 19mm comm. board, with second class teak wood moulded edging of size 32x 50 mm, with Treated wood support fr. of size 45x50 at 450c/c.The apron structure is made of 19mm th. comm. board with inner frame work of tr. wood of size 40x50mm at nominal 450c/c, with extra frame for the tapered corner edges, fixed to table top frame work. The apron and table top is to receive 1.0 mm lamination. Skirting band shall be of size 12x100mm with moulded top edge. The inner side of the apron shall have 12mm comm ply from inside to the frame work to provide finished surface. The drawer unit structure is made out of 19mm comm. bd. with drawers facia and inner structure of 115x12mm teak wood with base ply of 6mm ply with the facia edges having 12x10mm moulded beading and to receive 1.0 mm th. laminate same as the table. The table unit is to be melamine polished water proof matt finish.The drawers are to be sliding on nylon runners in aluminium channels, locking arrangement handles, brass hinges foot-rest etc.a) 1800x750x750 mm	EA	2.00		-
285	EXECUTIVE TABLE: Providing & fixing in position consisting of the followings:Top made out of 19mm comm. board, with second class teak wood moulded edging of size 32x 50 mm, with Treated wood support fr. of size 45x50 at 450c/c.The apron structure is made of 19mm th. comm. board with inner frame work of tr. wood of size 40x50mm at nominal 450c/c, with extra frame for the tapered corner edges, fixed to table top frame work. The apron and table top is to receive 1.0 mm lamination. Skirting band shall be of size 12x100mm with moulded top edge. The inner side of the apron shall have 12mm comm ply from inside to the frame work to provide finished surface. The drawer unit structure is made out of 19mm comm. bd. with drawers facia and inner structure of 115x12mm teak wood with base ply of 6mm ply with the facia edges having 12x10mm moulded beading and to receive 1.0 mm th. laminate same as the table. The table unit is to be melamine polished water proof matt finish.The drawers are to be sliding on nylon runners in aluminium channels, locking arrangement handles, brass hinges foot-rest etc.b)1500x750x750mm	EA	2.00		-
286	P/P Executive table of size 1800x900x750mm (ht) rectangular in with following components. Top made up of 30mm thick MDF board with sides from user end and visitor i.e along full length of top, ends in full round post formed in flex as per manufacturer specification and in back with balancing white, with cable manager, modesty panel 450mm wide in 18mm MDF board edges at both end full round circle post formed with flexes as per specification, resting on drawer unit and side unit at each end with provision of computer key tray. Drawer unit made up of 18mm thick MDF board Boxed from all three sides and top resting on 100mm wide recessed laminated skirting of size 300x600x760 mm (ht) with one No. drawer unit of 130mm wide running on side runner and rest in shutter (18mm MDF) with both ends half round rounded off post formed with flex as per manufactures specification and rest from inside in 1 mm white glossy laminate, complete in all respect in terms of concealed hinges, Magnet, locks, handles etc. Side units made up of 18mm thick MDF board , boxed from all three sides and top divided in to three parts , all laminated with 1mm glossy white laminate from inside; with first two horizontal shelves in 12mm MDF board post formed with full round from user side with sliding shutter made up of 18mm MDF board both end half round rounded off in post forming from user side and remaining in balancing white shutter running on slide, brand hanfa on PVC guidelines and PVC channels color brown with recessed handle, key etc. complete in all respect and remaining portion under table top opened for CPU, from front side, rest boxed, laminated from inside all resting on 100mm wide laminated slirting complete in all respect in terms of accessories.	EA	2.00		-

287	Storage unit/Side cabinet, filling cabinets consisting of 19mm thick commercial board structure, partitions, shelves, back with top moulding of 40x40mm and skirting of size 12x100mm with moulded edge. The shutters of divisions as per design shall be made of 1.0mm laminate and shutter edges to have 32x12mm moulding all around. Drawers construction shall be similar to that of the table. All exposed surface, top sides, finished in 1.0mm lamination of approved shade and texture. Brass hinges, brass ball catcher, locks to all shutters, melamine water cut matt finish, complete as per details (ii) 1050x450x675mm	EA	2.00		-
288	FMC (Low ht.) Providing making and fixing filing cabinets firmly fixed to the wall / partition and grouted to floor, 375 -450 mm deep comprising of 19 mm commercial board for shelves, bottom, shutters, apron, with all exposed of the cabinet with 1.0mm thk. lamination as per approved texture design including skirting 75 to 100 mm high laminated, all cut edges of shutter to have 25x12mm moulded teak lipping, All hardware of brass plate hinges, locks, with all wooden surface to be stained spirit polished with melamine finish. Interior of the Cabinets to have 3 coats of synthetic enamel paint with a coat of primer and back side should have 9 mm thick ply with primer. (measurement will be made for front elevation of the cabinet) a) 19 mm commercial board top with 1.0 mm thk. laminate	M2	2.00		-
289	FMC (fl to ceiling) Providing making and fixing filing cabinets firmly fixed to the wall / partition and grouted to floor, 375 -450 mm deep comprising of 19 mm commercial board for shelves, bottom, shutters, apron, with all exposed of the cabinet with 1.0mm thk. lamination as per approved texture design including skirting 75 to 100 mm high laminated, all cut edges of shutter to have 25x12mm moulded teak lipping, All hardware of brass plate hinges, locks, with all wooden surface to be stained spirit polished with melamine finish. Interior of the Cabinets to have 3 coats of synthetic enamel paint with a coat of primer and back side should have 9 mm thick ply with primer. FMC (fl to ceiling) (measurement will be made for front elevation of the cabinet) a) 19 mm commercial board top with primer	M2	2.00		-
290	CONFERENCE ROOM TABLE.: Conference room table oval shaped, consisting of the followings: Top is made of 19mm comm grade board, with base frame of treated wood of size 50x 40 mm at nominal distance of 550-600mm in both directions. The table top is to have edging of moulded second class teak of size 45 x 60mm all along the length of the top, is to be rendered with 1.0 mm th. lamination of approved shade as directed. The base pedastal is 'T' shaped -2 nos., fixed to the frame work of table top, comprises of hard wood framework of size 32x40mm at 450-500 c/c, with extra frame at the rounded edges, and at the skirting lvl., The frame work of the base pedastal is to have 19mm block board onto both sides of frame work, with t.w. moulded edge frame of size 70mm x 40mm at the vertical and the bottom edge. the exposed surface is to be rendered with 1.0 mm lamination of approved shade and texture. The table is to have stained spirit polish with water cut melamine finish. (ii) OVERALL SIZE 2100X 1050X750MM HIGH	EA	2.00		-
291	P/P drawer unit of size 770x450x730mm (ht) made up of 18mm thick MDF board, boxed from all three sides & top, inside laminated with 1.0mm white glossy, Double Shutter, edges rounded off exposed surface post formed with flex as per manufacture specification of approved shade and rest from inside with balancing white as per manufacturer specifications resting on 100mm wide recessed laminated skirting with one intermediate horizontal shelf, complete in all respect in terms of concealed hinges, handles, magnets locks etc. (Make: Godrej/Hettich))	EA	2.00		-
292	Providing and fixing and placing in position three drawers unit of size 415x450x725mm including hardware fitting half crank hinges brass handle multipurpose lock Godrej/Hettich make drawer channel etc. all complete as per item Nos 60-62 and as directed by EIC.	EA	2.00		-
293	Conference Table: (3000x1000): S&I Conference Rm. Table 40 mm thk formed out of 19 mm thick board top and 6mm thk ply bottom with filler piece to achieve 40mm thk. All edges to be strengthen in requisite width to form a profile of 40mm edges to receive moulding out of wood 40x40 mm matching to veneer as per detail and approval of Client. Top shall be finished in patterned veneer with grains/inlays as per details with 3 or more coats of melamine spray polish and fixed on drum pedestals as per design and detail of architect.	EA	2.00		-
294	Providing and fixing 12 mm thick toughened glass door of required size and design with patch fitting, 18" long heavy duty steel handle with necessary screws and floor spring, door lock (ozone/doorset make) etc. complete.	M2	10.00		-
295	Providing and fixing 12 mm thick toughened glass partition r of required size and design with patch fitting and associated works etc. complete.	M2	30.00		-
296	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	300.00		-

297	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	220.00		-
298	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side	M2	45.00		-
299	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides.	M2	45.00		-
300	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item) With float glass panes of 5.5 mm thickness	M2	30.00		-
301	Repairing of aluminum doors/windows/ventilators by changing damaged butt hinges, screws i/c dismantling and refixing the leaf, tightening of corner screws etc. complete job. For repairing up to three leafs at one location (Rate per leaf of any size).	EA	20.00		-
302	Fixing of available aluminium partition with glass and board including screws, transportation to site etc. complete in all respect as directed by EIC	M2	15.00		-
303	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item); With float glass panes of 5 mm thickness	M2	12.00		-
304	Providing and fixing 12 mm thick toughened glass door of required size and design with patch fitting and floor spring (ozone/doorset make) etc. complete.	M2	9.00		-
305	Providing and fixing handle (18" long) of Ozone/doorset make for toughened glass door with necessary screws etc. complete.	EA	8.00		-
306	Providing and fixing aluminium hinges upto 150 mm in aluminium doors / windows / ventilators i/c screws etc. complete	EA	12.00		-
307	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : b) For fixed portion Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15). With Champagne colour anodising.	Kg	200.00		-
308	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15) with champagne colour	Kg	200.00		-
309	Providing and fixing aluminium Handle for RHS/LHS aluminium windows of similar finish as for window including cleats, screws etc complete	EA	25.00		-
310					-
311	Pruning the branches of tree as required including arrangement of ladder, axe, saw etc to complete the job including removing of vegetation from site to the dumping yard upto any lead and lift.	EA	20		-
312	Proving all your equipment, tools and tackles and rendering services of Tree trimmer along with helper and consumables for trimming , pruning, cutting of branches required for lighting , safety purpose as per requirement at site complete as per direction of Owner.(The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	day	15		-

313	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x 2mm and braced with flat iron diagonals 20x5 mm size with top and bottom rail of T-iron 40x40x6mm with 40mm dia, steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles including applying a priming coat of approved steel primer.	M2	10			-
314	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x0.90 mm M.S. laths with 0.90 mm thick top cover	M2	10			-
315	Providing and fixing IRC fabric (welded mesh) of size 35x75 mm to the frame of MS angles, channels, tees, flats etc. at all floor levels including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer as required. In frames, gates etc. (Cost of MS frame will be paid separately). Fixed to steel frames by welding.	KG	75			-
316	Providing & Fixing asbestos cement 6mm thick corrugated sheets roofing up to any pitch and fixing J or L hooks, bolts and nuts 8mm dia. G.I. plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete (excluding the cost of purlins, rafters and trusses), including cutting sheets to size and shape wherever required.	M2	200.00			-
317	Providing and fixing ridges and hips in asbestos cement sheet roofing with suitable fixing accessories or self drilling fastener and EPDM washer etc. complete. Plain ACC ridges	M	100.00			-
318	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for therequired duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineerin- charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding. As per the safety requirement indicated in the safety manual of Owner. Note: - This item to be executed for work to be done by other agency as [er the requirement of Owner complete as directed.	M2	500			-
319	Injecting approved epoxy system into cracks at required pressure, cutting of nipples etc complete. (weight of epoxy shall be measured)	Kg	20.00			-
320	Injecting cement/cement sand slurry into cracks at required pressure, cutting of nipples etc. complete (weight of cement shall be measured)	Kg	90.00			-
321	Providing, drilling and inserting injection nipples along cracks linesor as directed by E.I.C for epoxy grouting or cement/cement sand slurry grouting.	EA	180.00			-
322	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : 150x100 mm P type. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	5.00			-
323	Providing and fixing square-mouth S.W. gully trap grade class SP-I complete with C.I. Grating brick masonry chamber with water tight C.I. Cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design: 180x150 mm P type. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	3.00			-
324	Electrical Works					-
325	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.- Group A	Point	400.00			-
326	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.-Group B	Point	100.00			-
327	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required-Group C	Point	50.00			-
328	Wiring for light point /fanpoint/exhaust fan/call bell point with 2X1.5 + 1X1.5 Sq mm PVC insulated copper conductor wires in recessed/surface PVC conduite,with modular switch,modular plate,suitable G.I box and earthing the point with 1.5 sq mm copper conductor wire etc as required. (Excluding of Ckt wiring from D.B to switch boards)Single light point controlled by a 6Amps modular type switch.(e) Three light points controlled by a 6Amps modular type switch.	EA	25.00			-
329	Wiring for light point /fanpoint/exhaust fan/call bell point with 2X1.5 + 1X1.5 Sq mm PVC insulated copper conductor wires in recessed/surface PVC conduite,with modular switch,modular plate,suitable G.I box and earthing the point with 1.5 sq mm copper conductor wire etc as required. (Excluding of Ckt wiring from D.B to switch boards)Single light point controlled by a 6Amps modular type switch.(f) four light points controlled by a 6Amps modular type switch.	EA	25.00			-
330	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 1X 1.5 Sqmm	M	500.00			-

331	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3 X 1.5 Sqmm	M	1500.00		-
332	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 2.5 Sqmm	M	3000.00		-
333	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 4 Sqmm	M	2000.00		-
334	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 6 Sqmm	M	100.00		-
335	WIRING 4x10+2x6 sq mm Supply and drawing of following sizes of PVC insulated stranded copper conductor wires of 1100 Volts grade in existing conduit, pipe including connection/termination etc as required.(e) 4x10+2x10 sq mm	M	200.00		-
336	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 16 sq. mm + 2 X 6 sq. mm earth wire	M	50.00		-
337	Providing and fixing of plug - in type telephone socket outlet (RJ-11) with G.I.outlet box and cover plate complete as required. Single plug in type	EA	100.00		-
338	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required- 4 Pair	M	2500.00		-
339	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required- 50 Pair	M	100.00		-
340	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 20 mm	M	200.00		-
341	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 25 mm	M	2500.00		-
342	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 32 mm	M	75.00		-
343	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 40 mm	M	100.00		-
344	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 50 mm	M	100.00		-
345	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 5/6 amps switch	EA	25.00		-
346	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 2 way 5/6 amps switch	EA	50.00		-
347	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 15/16 amp switch	EA	50.00		-
348	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 3 pin 5/6 amp socket outlet	EA	50.00		-
349	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 6 pin 15/16 amp socket outlet	EA	50.00		-
350	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 1 -2 Module	EA	100.00		-
351	Supply and fixing of 6/16 Amp switch, sockets of MK make modular type in PVC/GI box complete in all respects with testing & commissioning.	EA	150.00		-
352	SWITCHED SOCKET OUTLETS (6 A AND 16 A) Supplying and fixing of a set of 2 Nos 6 A Socket outlets and one no 16 A Socket controlled by 16 A Master Switch of MK make including GI/PVC box, connections complete in all respect	ST	25.00		-
353	SWITCHED SOCKET OUTLETS (6 A) A set of 2 Nos. 6 A switched socket outlets (FOR UPS )in a box, with providing & fixing 2 nos. 2/3 pin 6 A switches & socket outlets( But switch& socket should be at defferent possition or as required)..	ST	200.00		-
354	Supply & fixing of a set of one 6 amp switch & socket of modular type with suitable size G.I box.	EA	300.00		-
355	Supply & fixing of anchor make batten typ lamp holder & one no 11 watt CFL	EA	20.00		-
356	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as requireds	EA	100.00		-
357	INDUSTRIAL SOCKET OUTLETS (25/32A DPMCB) Supply, installation, testing & commissioning of industrial type plug and socket outlet with SP/TPN MCB (10 KA motor duty) mounted on a sheet steel enclosure including termination, earthing etc as required . (b) Supply and fising of 25/32 Amp DP MCB (C series) of approved make in MS encloser	EA	100.00		-
358	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	EA	25.00		-
359	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB omplete with connections, testing and commissioning etc. as required. Single pole	EA	250.00		-
360	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole and neutral	EA	20.00		-

361	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Triple pole	EA	20.00		-
362	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 25 amps	EA	60.00		-
363	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	EA	30.00		-
364	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	EA	30.00		-
365	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps MCB four pole.	EA	25.00		-
366	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 25 amps	EA	25.00		-
367	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	EA	25.00		-
368	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	EA	5.00		-
369	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32amps 240 volts "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	EA	30.00		-
370	Supplying and fixing TP sheet steel enclosure on surface/ recessed along with 16/25/32amps 415 volts "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	EA	15.00		-
371	Supply & fixing of single phase 3-pin 32 Amp ratting floor mounted industrial sockets weather proof IP 67 of Legrand/Neptune /Balls make complete pair with male & female type plug & socket arrangement.	EA	50.00		-
372	Supply & fixing of 63 Amp 3 phase 5 pin IP 65 industrial socket with top & complete with encloser & 3 phase MCB of 63 amp ratting of HAGER / Legrand /L&T /Merlingerin make	ST	10.00		-
373	Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 30 A, "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	EA	20.00		-
374	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 4 way (4 + 12), Double door	EA	10.00		-
375	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 6 way (4 + 16), Double door	EA	10.00		-
376	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 8 way (4 + 24), Double door	EA	10.00		-
377	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, EArth bar, din bar for mounting MCB's (but without MCB's and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 12 way (4 + 36), Double door	EA	10.00		-
378	Providing and fixing following rating and braking capacity and 3 pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.125 Amp, 16 KA,TPMCCB	EA	10.00		-
379	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 12 way, Double door	ST	10.00		-
380	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 8 way, Double door	EA	10.00		-

381	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 16 way, Double door	EA	10.00			-
382	VTPN (ACDB): 6W TPN Supply, installation, testing and commissioning of following double door type distribution boards fabricated out of 16 SWG, CRCA sheet steel recessed in wall or surface mounted. 6-way TPN AC DB double door type (IP 43),consisting of one no100 Amp TP MCCB (10 KA) as in commer & 18 no 25/32 Amp S.P MCB as out going.	ST	10.00			-
383	VTPN DB (ACDB): 8W TPN Supply, installation, testing and commissioning of following double door type distribution boards fabricated out of 16 SWG, CRCA sheet steel recessed in wall or surface mounted. 8 -way TPN AC DB double door type (IP 43),consisting of one no100 Amp TP MCCB (10 KA) as in commer & 18 no 25/32 Amp S.P MCB as out going.	ST	10.00			-
384	Supply, laying & fixing of following sizes of Cu/GI strip/wire clamped to walls, cable trays etc for equipment/ System earthing complete as required including inter connection between length at joints, all fixing accessories saddles, clamps etc and other fixing hardware material as required for proper installation.8 SWG G.I Wire	M	100.00			-
385	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	EA	10.00			-
386	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	ST	10.00			-
387	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	ST	6.00			-
388	Supply, Installation, Testing & Commissioning of Advance Miantenance Free Chemical Earthing System of 10 feet length, 63mm dia, 2 mm thick electrolytic grade copper tube duly filled with conducting chemicals with the permanant sealings at the both the ends with the lead terminal at the top along with 50 Kgs a chemical GEM to retain the life span of 15 years with the heavy duty poly plastic earth pit cover. The chemicearthing system should be fabricated with earthing electrode and back fill compound which has the capability to enhance the ground connectivity. The connectivity should be extended to the place of equipment thourgh the copper strip which will be burried under ground.The specification of the electrode are as under a) Electrode should be 3 meter long 63mm thick in diameter =0 1 no B) Should be made of galvinsed steel (90-100) microns with pipe in pipe technology C) Annular space filled with high conductive and anti corrosive withhigh conductive and anti corrosive crystalline conductive mixture D) Should be strong and corrosion resitant E) Manufactured in accordance with PS 3043-1987 (Code of pratice of earthing) F) Electrode should be dug in ground Sralong with soil friendly, moisture retaining back fill compound which has capability to enhance groundconductivity (min 125Kg of back fill compound for earthing system) G) The result should be below 1 Ohm in any case .	ST	2.00			-
389	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	M	100.00			-
390	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	M	200.00			-
391	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 2.5 Sq mm Copper armoured XLPE cable	M	20.00			-
392	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 4 Sq mm Copper armoured XLPE cable	M	20.00			-
393	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 6 Sq mm Copper armoured XLPE cable	M	20.00			-
394	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC <u>insulated Aluminium conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. b) 3 core 6 Sq. mm Aluminium	M	250.00			-
395	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. a) 2 core 10 Sq. mm Aluminium	M	250.00			-
396	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 3 C x 10 Sq.mm	M	250.00			-
397	4CX10sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. b ) 4 core 10 Sq mm Aluminium	M	250.00			-
398	4CX16 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 16 Sq mm Aluminium	M	250.00			-
399	4CX25 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 25 Sq mm Aluminium	M	100.00			-

400	4CX35 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 35 Sq mm Aluminium	M	100.00			-
401	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 50 Sq.mm	M	50.00			-
402	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4C x 95 Sq.mm	M	25.00			-
403	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 185 Sq.mm	M	25.00			-
404	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 300 Sq.mm	M	25.00			-
405	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Upto 25 sq. mm	M	500.00			-
406	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Above 25 sq. to 120 sq. mm	M	50.00			-
407	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Above 120 sq. mm to 400 sq. mm	M	50.00			-
408	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes <b>on surface</b> as required:- Upto 25 sq. mm	M	50.00			-
409	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes on surface as required:- Above 25 sq. to 120 sq. mm	M	50.00			-
410	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes on surface as required:- Above 120 sq. mm to 400 sq. mm	M	50.00			-
411	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following sizes in the existing RCC/ HUME/ STONEWARE/ METAL pipe as required:- Upto 25 sq. mm	M	50.00			-
412	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following sizes in the existing RCC/ HUME/ STONEWARE/ METAL pipe as required:- Above 25 sq. mm to 400 sq. mm	M	50.00			-
413	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 3 C x 10 Sq.mm	ST	30.00			-
414	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 10 Sq.mm	ST	30.00			-
415	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 16 Sq.mm	ST	30.00			-
416	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. End termination 4 X 25 sq. mm (28mm)	ST	5.00			-
417	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. End termination 4 X 35 sq. mm (32mm)	ST	5.00			-
418	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 50 Sq.mm	ST	15.00			-
419	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 95 Sq.mm	ST	10.00			-
420	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 185 Sq.mm	ST	5.00			-
421	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4C x 300 Sq.mm	ST	5.00			-
422	Supply and fixing of 36 watt T8 or 28 watt T5 lamps in existing light fixtures.	EA	5.00			-
423	Supplying and Fixing of Flood light of philips Out door type BRP 022 LED - 21 watt LED street light fittings of Philips including GI pipe for mounting the light and accessories like clamps, bolt, nut etc with testing and commissioning in all respect.	EA	2.00			-
424	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. b) 1x 18 Watt LED wall light model type 31081 4 feet long Fixture of philips surface mounted type .	EA	100.00			-
425	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. b) 1x 9 Watt LED wall light model type 31081 2feet long Fixture of philips surface mounted type .	EA	25.00			-

426	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. <b>surface mounted. LED philips lighting Sereno LED /SP 824 P LED 29S-5000 GR OD,</b>	EA	10.00		-
427	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required.e) Supply, Installation of philips bulk head light fittings of CAT no FXC 101 including 11 watt CFL lamp	EA	5.00		-
428	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Recessed mounted fitting with <b>1 x 12 Watt, LED Light</b> (Make:-Philips CAT No. DN192B-LED9S-6500 PSU WH) or equivalent.	EA	100.00		-
429	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:-Recessed mounted fitting with <b>1 x 12 Watt, LED Light</b> (Make:-Philips CAT No. DN193B-LED12S-6500 PSU WH) or equivalent.	EA	50.00		-
430	Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of Recessed mounted , minimum 600 lumens LED light fitting complete as required., (Philips : Green LED Ultima Circular DN091B LED6S-6500 PSU WH orEquivalent),,	EA	20.00		-
431	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:-Surface mounted circular fitting with <b>1 x 13 Watt LED Light</b> (Make:-Philips CAT No. BBS313 1xDLED-5000 WH) or equivalent.	EA	1.00		-
432	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Recessed mounted fitting with <b>4 x 14 Watt, LED Light</b> , direct-indirect lighting luminaire with special seamlessly integrated frame and full Opal Acrylic Diffuser (OAD) (Make:-Philips CAT No. 2' x 2' LED-RC380B LED-25-6500 PSE OD WH (40W)) or equivalent	EA	100.00		-
433	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Surface mounted fitting with <b>1 x 12 Watt, LED surface Light Square (CW)</b> (Make:-Philips Square panel LED Light)	EA	10.00		-
434	Supplying and Fixing of Flood light of philips Out door type BVP161 30 watt LED street light fittings of Philips including fixing clamp ,accessories like clamps, bolt, nut etc with testing and commissioning in all respect.	EA	10.00		-
435	Retrofitting of existing recessed type light fixtures T8/T5 2X36 /40 watt by LED lamps of 2 X 18 watts of philips complete with retrofit arrangement.	EA	20.00		-
436	Retrofitting of existing recessed type light fixtures T8/T5 1 X36 /40 watt by LED lamps of 1 X 18 watts of philips complete with retrofit arrangement.	EA	10.00		-
437	Supply & fixing of Philips / Wipro / 3M , warm white colour LED light strip 5 watt per meter ,complete with power supply adpoter etc.	M	10.00		-
438	Suspended type 8 ft, minimum 5400 lumen Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of suspended type 8 ft, minimum 5400 lumens LED light fitting with continuous interconnection feature, complete as required., (Regent Slash 28W or Equivalent),, Complet with suspention arrangement & clamps etc	EA	1.00		-
439	Recessed type 8 ft, minimum 5400 lumen Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of suspended type 8 ft, minimum 5400 lumens LED light fitting with continuous interconnection feature, complete as required., (Regent Slash 28W or Equivalent),, Complet with suspention arrangement & clamps etc	EA	1.00		-
440	Supplying and fixing of 250 mm dia exhaust fan with louvers and bird screen of PVC body in existing opening with 900 rpm (Approved make) of 250 mm dia .	EA	5.00		-
441	Supplying and fixing of exhaust fan with louvers and bird screen of PVC body in existing opening with 900 rpm (Approved make) b) 305 mm dia	EA	10.00		-
442	Supplying and fixing of 305 mm dia exhaust fan with louvers and bird screen of MS body in existing opening with 1400 rpm (Approved make) of 305 mm dia	EA	10.00		-
443	Heavy duty Exhaust fan 450 mm dia Supplying and fixing of size of exhaust fan with louvers and bird screen of Heavy duty of MS body in existing opening with 1400 rpm (Approved make) b) 450 mm dia(1400 rpm)	EA	5.00		-
444	Stainless Steel cover-Supplying and installation of following sizes 2.0 mm thick 4 way GI boxes with 2.0 mm thick Stainless Steel cover and fixing SS hardware in recess/ on surface including chasing the wall/floor complete as required. A) 200 x 200 x 50-75 mm	EA	25.00		-
445	Supply & fixing of 2 to 3 mm thick SS plates of size 300 X300 mm complete drilling the holes finishing & polishing the same	EA	5.00		-
446	Supply & laying of aluminium /GI floor race way of size 100X40 mm imbeded in floor including cutting of PCC & cover tge same with semi finish	M	10.00		-
447	Supply & laying of aluminium /GI floor race way of size 100X50 mm imbeded in floor including cutting of PCC & cover tge same with semi finish	M	10.00		-
448	Supplying and installing following size of perforated pre-painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required 150 mm width X 50 mm depth X 1.6 mm thickness.	M	10.00		-
449	Fabricating & installing perforated GI cable trays including horizontal and vertical bends, reducers, tees, cross members and other accessories as required including GI C Channe supports of 300 mm width x 50 mm depth x 2 mm thickness (/SLOTCO BEECO /RICO Steel)	M	10.00		-

450	Fabricating & installing perforated GI cable trays including horizontal and vertical bends, reducers, tees, cross members and other accessories as required including GI C Channe supports of 450 mm width x 50 mm depth x 2 mm thickness (SLOTCO BEECO /RICH Steel)	M	10.00		-
451	Providing and fixing of Fan Hook in existing Slab including cutting cement concrete and making good the same.	EA	10.00		-
452	Installation,fixing,testing,comissioning & assembling the street light 70 watt/120 Watt/ 150 watt/250/400 watt Normal OTR LED fittings complete with inter connection of blasst ,starter /iginator and lamp etc (Fittings with parts are supplied by TPDDL at site).	EA	25.00		-
453	Supply & fixing of 1-1/2 inch dia GI pipe medium class 750 mm to 1000 mm long, light fittings mounting brackets with 02 no mounting clams complete with nut bolt &washer etc	EA	50.00		-
454	Providing & installation (laying) of PVC insulated un armoured cable of 1.5 Sq mm 2 core including termination connection etc	M	200.00		-
455	Supplying and fixing Testing & commissioning with cable connection / termination of 200 mm x 160 mm x 98 mm (inner size) Pole Box made of polysterene thermoplastic having shock proof, bweather proof, rust proof, water proof (conforming to IP-65) enclosure having suitable size knock outs for cable entry in surface/recess of wall or on existing pole with 2 nos. of G.I. Clamps including 6 /10A SPMCB & 3 nos. Connectors suitable for 6/16/25 sq.mm. XLPE insulated cable for looping in and outwith branch out suitable for 2.5 sq.mm. PVC insulated wire including interconnections etc. as required.	EA	10.00		-
456	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required. 5/6 amps switch	EA	10.00		-
457	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.2 way 5/6 amps switch.	EA	10.00		-
458	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.15/16 amp switch	EA	10.00		-
459	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required. 3 pin 5/6 amp Socket.	EA	10.00		-
460	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.6 pin 15/16 amp socket outlet	EA	10.00		-
461	Supply and laying of 25 mm Dia PVC flexible conduits complete with dressing and fixing etc,	M	50.00		-
462	PVC Insulated copper Arm. Cable 1.5 SQ.MM. 2 Core Providing & Installation of PVC insulated Copper armored cable 1.5 sq. mm 2 core including termination connections etc. as required.	M	1000.00		-
463	Manual Call Box Providing & Fixing of manual call box in suitable enclosure with arrangements to raise the alarm when the glass is manually broken, complete as required	EA	25.00		-
464	Electronic Fire Hooter Providing & Fixing electronic fire hooters of 120dB sound level, suitable for mounting, complete as required.	EA	25.00		-
465	Blinking Type Smoke Detector Providing & Fixing of Blinking type Smoke Detector (Dual chamber ionisation type with mounting base, complete as required.	EA	150.00		-
466	Blinking Type Photoelectric Smoke Detector Providing & Fixing of Blinking type photo Electric type Smoke Detector with mounting base etc. complete as required.	EA	2.00		-
467	Blinking Type Fixed Temperature Heat Det Providing & Fixing of Blinking type Rate of Rise cum Fixed Temperature Heat Detector with mounting base etc. complete as required.	EA	25.00		-
468	Supplying, installing, testing and commissioning 4 zone Main Control Panel with zone indication. The panel shall include solid state circuits, battery charger, batteries etc. and fire/fault/test positions selector switches, zone isolation facility etc. complete as required.	EA	10.00		-
469	Supplying, installing, testing and commissioning 2 zone Main Control Panel with zone indication. The panel shall include solid state circuits, battery charger, batteries etc. and fire/fault/test positions selector switches, zone isolation facility etc. complete as required.	EA	10.00		-
470	Fire Detection Panel 3-6 Zones Providing, Fixing and commissioning the new fire detection panel of similar specification complete in all respect for: 3 to 6 Zone Micro-processor based fire alarm panel with made of 16 SWG CRCA Sheet with hinged front cover and acrylic sheet in the front with locking arrangement and inbuilt battery Box, comprising of Audio/visual alarm Indication of fire & fault etc, with Control panel consisting 8 bit system CPU 11.0592 MHz WDT processor, 16 X 4 line LCD display, time and date on LCD, complete with 100 event data logger with date and time stamp, optional serial direct thermal dot line printer connectivity with 48mm print width, indications for fire, fault, mains power and battery. The panel shall also contain annunciation window type indicators for fire and fault. Panel should support a) RS 485 serial communication mode for active repeater b) TCP/IP converters for centralized monitoring of the panel from any remote PC c) ATX key board support for field programming d) PA system connectivity for announcement and alerting. The panel shall contain built-in battery charger and battery space for 2 X 12V, 7Ah maintenance free battery (Exide/ Panasonic) for 6 hrs back up in normal case and 30 min back up in case of alarm. (Approved Make: Honeywell/Agni Suraksha(Dataatakex) / Safeway /System Sensor)	EA	1.00		-
471	Please consider as following : Response indicator with twin transparent LED that shall glow red in case of fire.	EA	30.00		-
472	MS galvanized boxes - used as the base of the detector installed at the ceiling	EA	40.00		-
473	Supply & fixing of MINILEC make single phase suitable up to 32 Amp auto transfer switch complete with auto / adjustable timer for auto ON/OFF one by one each AC units as per timer setting , suitable for server rooms AC units	EA	5.00		-
	<b>Total Excl. GST</b>				-
	<b>GST @18%</b>				-
	<b>Total Incl. GST</b>				-

Work is to be carried out in the areas, locations covered under various Divisions, Sub - Divisions, Sections of the WESCO Utility Circle as mentioned in the attached Annexure II. Vendors need to visit these areas / locations to understand the scope of work and get acquainted with the areas , local conditions, availability of resources etc. where works are required to be executed.

The rates finalised for the Circle shall be applicable to all the works covered under Divisions, Sub - Divisions, Sections of the Circle.

**General Civil Works in various areas under Bargarh Circle of WESCO Utility**

Sr. No.	Brief Item description	Unit	Qty	Rate	Amount
1	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	500		-
2	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, dewatering and depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	500		-
3	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>1.51 to 3.0</b> mtrs	M3	400		-
4	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, dewatering and depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>1.51 to 3.0</b> mtrs	M3	400		-
5	Providing cartage service and transporting, excavated soil, debris, bricks, concrete, scrapwood including loading and unloading and disposing off to dumping sites approved by statutory bodies outside premises including submission of relevant documents, as applicable outside the station premises. (Note. Payable measurement shall be dismantelled qty. (Voids to be deducted as applicable whenever heap / truck mesurements are taken))	M3	400		-
6	Excavation in all types of <b>hard rock with mechanical equipment rock breaker</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	25		-
7	Providing close timber shoring consisting of 25 mm thk. walling and struts of size 100x100 mm or any other suitable alternative to sides of excavation / trenches / pits etc. wherever necessary and as directed for depth from 0 to 1.50 Mtrs	M2	200		-
8	Providing close timber shoring consisting of 25 mm thk. walling and struts of size 100x100 mm or any other suitable alternative to sides of excavation / trenches / pits etc. wherever necessary and as directed for depth from 1.51 to 3.00 Mtrs	M2	200		-
9	Backfilling trenches in 225 mm thick layers consolidated to 150mm.with murrum / excavated material (available at site upto 100 mtr.) including compaction of backfill by watering and tamping with approved hand or mechanical tampers.	M3	105		-
10	<b>Backfilling</b> trenches in 225 mm thick layers consolidated to 150mm <b>with murrum procured externally</b> including compaction of backfill by watering and tamping with approved hand or mechanical tampers. (mode of measurement will be Pre & Post work levels.Voids to be deducted at 20% if on truck measurement))	M3	35		-
11	Providing and laying 225 or 300 mm thick <b>dry rubble soling</b> with approved quality stones including filling gaps with small chips ramming with hand rammer etc. complete.	M3	400		-
12	Providing and laying 225 or 300 mm thick <b>dry rubble soling</b> with approved quality stones including filling gaps with small chips ramming with hand rammer etc. complete.(Rubble will be supplied by Tata's free of cost / <b>using available rubble at site</b> )	M3	35		-
13	Providing and spreading <b>metal No.3 or 4</b> in trenches or for pathways (including all materials) in layers for all thicknesses from 75 mm thick onwards and consolidating the same with hand rammer, etc. complete.	M3	28		-
14	Spreading and laying <b>metal No.3 or 4</b> in trenches or for pathways (including all materials) in layers for all thicknesses from 75 mm thick onwards and consolidating the same with hand rammer, etc. complete by <b>using metal available at site</b> .	M3	35		-
15	<b>Demolishing Brick Wall</b> (Including Plaster) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	35		-
16	<b>Demolishing Plain Cement Concrete (PCC)</b> (Including Plaster, flooring, mortar bedding) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	35		-
18	<b>Demolishing Reinforced Cement Concrete (RCC)</b> (Including Plaster, flooring, mortar bedding,Cutting Reinforcement) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	30		-
19	<b>Demolishing / removing Plaster of various thickness</b> and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M2	150		-
20	<b>Demolishing Asphalt Surface of various thickness</b> and transporting debris within companies premises or as directed including providing tools, tackles and pneumatic equipment as directed	M3	30		-

21	<b>Demolishing Rubble Soling / Pitching upto 300 mm thickness</b> and transporting debris within companies premises or as directed including providing tools, tackles and pneumatic equipment as directed	M3	7		-
22	<b>Dismantling</b> and neatly stacking <b>structural steel</b> work of roof trusses, purlins, beams, columns, chequered plate floorings, treads, risers, stringers, bracings, runners, fencing posts etc. at all heights including providing all accesories complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include returning the dismantled members to owner's stores at division etc. complete as directed.	MT	35		-
23	<b>Dismanting</b> and stacking including removal of wooden or steel frame work,angle supports etc. complete as directed for <b>Doors / Windows / Ventilators.</b>	M2	35		-
24	<b>Dismantling</b> and removal of <b>chainlink fencing</b> including removal of angle posts & barbed wire and returning the dismantled members to owner's stores at division etc. complete as directed. including scaffolding as per safety standards etc. complete as directed.(Rate shall inclusive of providing necessary tools tackles , cutting set, welding set wherever required.)	M2	140		-
25	<b>Dismantling</b> and stacking <b>AC or CGI sheets</b> on roofs or partitions excluding removal of wooden or steel frame work, angle supports etc. complete. (Rate including returning AC sheets in usable condition to store) for AC or CGI Sheet in usable condition	M2	70		-
26	<b>Providing</b> all the materials including screws, bolts and fixing corrugated <b>A.C. Sheet, GI Sheet, Galvalume sheet</b> on partition, roof or any other place including cutting, screwing etc. complete at all elevations (Only Sheets shall be supplied by TATA's free of cost)	M2	300		-
27	Carefully breaking and removing old tiles in floor / dado / skirting including mortar bedding / plastering and carting away debris and stacking tiles pieces within Owner's premises as directed by Engineer. (Mosaic / Plain Cement Tiles, Glazed Tiles & Nonskid ceramic tiles etc.)	M2	100		-
28	Dismanting and stacking including removal of wooden or steel frame work,angle supports etc. complete as directed for <b>Doors / Windows / Ventilators.</b>	M2	500		-
29	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Raft / footings</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	50		-
30	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Pedestals, columns, walls</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	20		-
31	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Beams / slabs</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	10		-
32	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Raft / footings</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	50		-
33	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Pedestals, columns, walls</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	20		-
34	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Beams / slabs</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER .	M3	10		-

35	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Pardis / Fins</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER.	M3	3		-
36	Providing all the materials laying Indian Patent Stone flooring in M15 grade concrete, including finishing the surface & curing etc. complete as directed ... 37 mm thk with Aluminium strips in panels of 2 x 2 M (Cement Consumption 0.36 Bag/M2)	M2	35		-
37	Providing all the materials laying Indian Patent Stone flooring in M15 grade concrete, including finishing the surface & curing etc. complete as directed ... 50 mm thk with Aluminium strips in panels of 2 x 2 M(Cement Consumption 0.48 Bag/M2)	M2	35		-
38	Supplying, Providing and laying in position <b>plain cement concrete of grade M10 machine mixed, vibrated and placed to correct line and level in levelling course/fill under or around foundations pits, slabs on grade, sumps, soak pits</b> , etc. at any depth with 30 mm down graded coarse aggregates including curing, compacting, de-watering wherever necessary, providing marine plywood shuttering form work wherever required etc. complete. (Min cement content 210Kg/m3)	M3	20		-
39	Supplying, Providing and laying in position <b>plain cement concrete of grade M15 machine mixed, vibrated and placed to correct line and level in levelling course/fill under or around foundations pits, slabs on grade, sumps, soak pits</b> , etc. at any depth with 30 mm down graded coarse aggregates including curing, compacting, de-watering wherever necessary, providing marine plywood shuttering form work wherever required etc. complete. (Min cement content 300 Kg/m3)	M3	30		-
40	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 12.5 mm nominal size).	M3	8		-
41	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	M2	200		-
42	Providing and fixing precast reinforced concrete cable trench covers, drain covers, fencing post, etc of class M25 concrete w/c 0.5 (max) leaving cutouts/ pockets, placing of inserts/ embedments, etc., complete all as per drawing including shuttering, vibrating, machine mixing, providing lifting arrangements, placing inserts curing handling, transporting, etc. complete but excluding the cost of providing reinforcement, inserts / embedments,with 30 mm downgraded aggregates. (Cement consumption 7.9 Bag/M3)	M3	4		-
43	Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding <b>reinforcement steel</b> for all types of RCC / Precast work irrespective of locations & levels all as per drawings including steel scaffolding, handling and transporting from site stores, complete as directed by using High yield strength deformed bars conforming to IS 1786 - <b>HYSD Bars</b>	TO	7		-
44	Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding reinforcement steel for all types of RCC work irrespective of locations & levels all as per drawings including handling and transporting from site stores complete as directed y using Mild Steel bars conforming to IS 432 - M S Bars / rods	MT	2		-
45	Providing all material and constructing brick masonry 230mm. thick and above in cement mortar (1:5) using approved quality, class 50 conforming to IS:3102 table moulded bricks, including leaving inserts / pockets, steel scaffolding, curing, raking joints, etc.	M3	300		-
46	Providing all material and constructing brick masonry 115 mm. thick and in cement mortar (1:4) using approved quality, class 50 conforming to IS:3102 table moulded bricks, including leaving inserts / pockets, steel scaffolding, curing, raking joints, etc. Any reinforcement required to be placed shall be paid separately in reinforcement item of this BOQ.	M2	200		-
47	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand)	M3	250.00		-
48	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	M3	50.00		-
49	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	M2	200.00		-
50	Providing all materials and carrying out <b>sand faced plaster 25 mm thick in two layers</b> (first layer of 16 to 18 mm and second layer of 6 to 8 mm thickness ) and plastering external surfaces of concrete and brick work such as walls, columns, beams etc. with 1:4 cement mortar, including providing & erecting steel scaffolding, hacking of concrete surfaces, curing including bands, drip moulds, grooves, etc. complete with 2% Accoproof or approved waterproofing compound	M2	500		-
51	Providing all materials and carrying out <b>sand faced plaster 18 mm thick in sigle layer</b> and plastering external surfaces of concrete and brick work such as walls, columns, beams etc. with 1:4 cement mortar, including providing & erecting steel scaffolding, hacking of concrete surfaces, curing including bands, drip moulds, grooves, etc. complete with 2% Accoproof or approved waterproofing compound	M2			-
52	Providing and <b>plastering internal surfaces</b> of concrete and brick work such as walls, ceilings, columns, beams, etc. with cement mortar 1:4 mix <b>finish smooth with 1:1 proportion cement &amp; slaked lime neeru / instant neeru</b> , including providing and erecting steel scaffolding, hacking concrete surface, providing bands, grooves drip moulds, curing, etc - <b>12 mm thk</b>	M2	105		-

53	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface to receive exterior quality paint , Applying a coat of approved Primer and Two Coats of Paint. Including necessary scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Exterior quality Plastic Emulsion paint</b>	M2	150		-
54	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface plain by applying putty, Applying a coat of approved Primer and Two Coats of Paint. Including necessary steel scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Synthetic Enamel Paint</b>	M2	150		-
55	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface plain by applying putty, Applying a coat of approved Primer and Two Coats of Paint. Including necessary steel scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Internal quality Plastic Emulsion paint</b>	M2	140		-
56	Providing all materials, tools tackles and labour, preparing the surface by scrapping / wire brushing to remove loose scales, Applying 3 coats of <b>White Wash</b> of approved Shade & Manufacturer, including necessary steel scaffolding / staging etc. complete as directed.	M2	140		-
57	Providing all materials roughening the surface and carrying out <b>waterproofing treatment to roof with brickbat coba</b> with well burnt half to three quarter bricks laid on edge diagonally, grouted with 1:3 CM with water proofing compound 5% by weight of cement of average thickness 125 mm including 50 mm thk IPS M15 grade including surfaces up to 300 mm above the finished surface on side walls( Measurements shall be based on net plan area only). Work to be guarantted for minimum 7 years	M2	70		-
58	Providing and constructing <b>112mm thick brick masonry Partition Walls in CM 1:4</b> including, scaffolding, curing, racking of joints for plastering or pointing, including transomes and mullions complete at all heights as per specification and as directed. (Reinforcement will be measured and paid for separately.)	M2	7		-
59	Providing and constructing <b>uncoursed rubble masonry in CM 1:5</b> including leaving inserts / pockets, steel scaffolding, curing, raking out joints for plastering / pointing complete for 0 to 4.00 Mtrs. High (Cement consumption 2.26 bag/M3)	M3	35		-
60	Providing all your tools and tackles and rendering services of Electrician / Carpenter / Plumber along with helper and consumables for minor repairs i/c providing washers, thread, m seal, screws, nails, fevicol, fuse wire, insulation tape and T & P as per requirement at site complete as per requirement of Owner.(The unit of per day is meant for 8 hours and it shall be paid judiciously on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	Day	90.00		-
61	Providing and fixing GI chicken wire mesh on concrete and masonry joints using nails, T&P etc. as per direction of the EIC complete.	M2	50.00		-
62	Making round opening in wall for exhaust fan upto 450 mm including making good the wall, jamps with cement mortar 1:4 (1 cement : 4 coarse sand) and finishing complete.	EA	10.00		-
63	Providing all the materials and carrying out <b>raised or flush cement pointing</b> in 1:3 cement mortar including providing and erecting steel scaffolding, curing, etc. complete <b>to rubble masonry / rubble pitching</b>	M2	35		-
64	Providing all the materials and equipments, fixing <b>marble mosaic tiles</b> of approved make such as BHARAT / NITCO / SIMPLEX or equivalent in floors and including cleaning the base laying 25 mm thick bedding mortar of one part of cement two parts of lime and six parts of sand, floating tiles in cement slurry at 5 Kg / M2, polishing with machine including washing with oxalic acid as directed, Neutral Shade tiles floated in Grey Cement.	M2	30		-
65	Providing and fixing <b>25mm thick Kotah Stone flooring</b> (machine cut and machine polished) with necessary cement mortar bedding, floating with matching colour cement, curing, machine polishing, cleaning etc. complete.	M2	25		-
66	Providing and fixing <b>35mm thick machine cut machine polished black kaddappa stone</b> of any sizes for counter / cooking platform with necessary cement mortar bedding and floating with matching colour cement, curing, polishing, cleaning etc or cutting grooves in walls & redoing in CM (1:3) complete.	M2	20		-
67	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels Granite of any colour and shade. Area of slab over 0.50 sqm.	M2	20		-
68	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels. a) Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble. Area of slab over 0.50 sqm.	M2	20		-
69	Providing half round edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Marble work	M	10		-
70	Providing half round edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work	M	10		-

71	Providing and fixing first quality <b>non-skid ceramic tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:5 bedding of average thickness 40mm , floated with matching cement etc. complete of size (300mm X 300mm). Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	30		-
72	Providing and fixing first quality ceramic <b>glazed tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:5 bedding of average thickness 40mm , floated with matching cement etc. complete of all sizes. Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	50		-
73	Providing and fixing first quality <b>Coloured glazed tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:4 bedding upto 40mm , floated with matching cement etc. complete of all sizes upto 300 x 600. Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	20		-
74	Providing and fixing first quality ceramic <b>vitrified tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor laid to line and level on cement mortar 1:4 bedding upto 75mm , floated with matching cement etc. complete of size 600 x 600.	M2	50		-
75	Rubbing and grinding of existing terrazo/mosaic flooring i/c polishing to the desired finish complete at all floor levels	M2	500.00		-
76	<b>Fabricating and erecting structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts, and washers and applying one coat of Shalimar or any other approved make red oxide (primer) paint to all the exposed surfaces of steel. <b>Only structural Steel to be provided by Owner at the nearest store</b>	TO	80		-
77	<b>Providing steel and supplying all material, fabricating and erecting structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as per the approved drawing or as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts, and washers and applying one coat of Shalimar or any other approved make red oxide (primer) paint to all the exposed surfaces of steel. Structural steel section shall be of primary manufacturer and confirm to IS2062 requirements	TO	80		-
78	<b>Providing steel and supplying all material, fabricating and erecting galvanized structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as per the approved drawing or as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of GI bolts, and nuts, and washers. Structural steel section shall be of primary manufacturer and confirm to IS2062 requirements & GI coating shall confirm to IS2629 (1985) & 4759 (1996) .#contractor shall submit the test certificate of GI coating thickness. Thickness should be 80 Microns HOT Dip.	TO	10		-
79	Providing steel and Supplying all material for Fabricating and erecting all types of steel work including welding, gas cutting, grinding, drilling of holes, or other lifting arrangements etc. Contractor shall use his own welding set, gas cutting set, gas, approved quality of welding electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts , and washers and applying coats of Zinc primer to all the exposed surfaces of steel. <b>For MS Chequered plates.</b>	MT	15		-
80	Providing, fabricating and erecting <b>6 / 8 / 10 mm thick aluminum Chequered plate</b> for platform, flooring, treads, risers, stringers, bracings, runners etc. at all heights including straightening, cutting, grinding, drilling of holes or other lifting arrangements, etc. complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of bolts, and nuts' washers and other fixtures etc. complete.	MT	5		-

81	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete. 75 mm overall thickness partition with 12.5 mm thick double skin fire rated Glass Reinforced Gypsum (GRG) board conforming to IS: 2095: (part 3) : 1996 (Board with BIS certification marks)	M2	20.00		-
82	Providing all your equipment, tools and tackles and rendering services including consumables for welding of various steel works viz doors, windows, gates, partitions,grills etc., including hiring charges of welding machine with welder & helper, carriage etc complete in all respect. (The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	day	30		-
83	Providing and fixing powder coated aluminum Partition part panelled and partly glass 8mm thick Main frame shall be made out of Hollow extruded sections of size 100mm x 75mm x 14 gauge.	M2	35		-
84	Providing and fixing powder coated aluminum doors part panelled and part louvered or glass 8mm thick ( for all sizes ) Main frame shall be made out of Hollow extruded sections of size 100mm x 75mm x 14 gauge. The louvers shall be made of 5.5mm thick wire glass slided inside suitable aluminum 14 gauges channels fixed to main frame by 2 nos. 4 mm aluminum rivets fixed at 45 deg etc. complete.	M2	25		-
85	Making pockets in Brick Masonry / PCC / RCC at all levels on the vertical and horizontal faces with necessary staging as required to fix anchor bolts / inserts (Supplied by Tata free of cost) and Grouting the pockets with 1:1 cement mortar after placing the bolts / inserts and finishing the surface either smooth or sand faced as required upto 200 mm square & depth upto 300mm	NO	20		-
86	Providing and fixing CI rain water pipes conforming to ISI with bends clamps etc., as directed.				-
87	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 100mm Dia.	M	35		-
88	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 150mm Dia.	M	35		-
89	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 200mm Dia.	M	35		-
90	Providing all the materials & fixing corrugated GI Sheet 16 guage including GI screws, GI bolts, bitumen washers on partition, roof or any other place including cutting, screwing etc. complete at all level including scaffolding.	M2	250		-
91	Providing , stretching and fixing chain link fencing 2" square and of gauge 10 (bare metal thickness) on angle posts with heavy duty GI split pins etc. in position complete as directed at all Heights including steel scaffolding.	M2	3000		-
92	Stretching and fixing chain link fencing 2" square and of gauge 10 (bare metal thickness) on angle posts with heavy duty GI split pins etc. in position complete as directed at all Heights including steel scaffolding. (Only Chain link shall be supplied by the Owner).	M2	200		-
93	Providing and fixing reinforced barbed wire tape (RBT) (2.6mm) thick single wire along the boudary wall / fencing on angle iron post with all necessary fitting such as welding of nuts, bolts, clips, split pins, TSP & such etc.complete	M	2000		-
94	Providing and fixing G I barbed wire of 10 guage along the boudary wall / fencing on angle iron post with all necessary fitting such as welding of nuts, bolts, clips, split pins, manpower etc.complete	M	1000		-
95	Providing and fixing concertina coil of 610 mm dia., 80 Nos. of circles, 200 Nos. of clips, hot dip galvanized. The wire shall be of 12 SWG tensile wire, covering 10 RM with one coil, each RM will have 8 Nos. of circles, including labour, fixing in position on existing V shaped angles including 2 nos. of guard wires and painting with 2 coats of Bus green paint complete at all heights including scaffolding.	M	500		-
96	Providing & fixing Broken glass pieces over coping on compound walls including providing ladders, scaffolding etc. complete as directed Ave. width 300 MM	M2	500		-
97	Hiring JCB with operator & helper including fuel and carrying out the work as directed by Owner's site manager.	shift	30		-
98	Hiring Poclain with operator & helper including fuel and carrying out the work as directed by Owner's site manager.	Shift	10		-
99	Providing ,Cutting and fixing HDPE pipe inserts 140 mm dia	M	35		-
100	Providing ,Cutting and fixing HDPE pipe inserts 200 mm dia	M	35		-

101	Supplying, fabricating and erecting Tubular Hand railing of 32 mm dia. NB medium class, SS pipes 304 mat finish /brush steel finish consisting of one SS rail and connecting with wall with all necessary SS bends, SS tee joints, SS fixtures, SS fittings, anchor bolts 6 mm dia and embedded in wall, etc. The assembly should be sturdy and with smooth surfaces at joints/ junctions. All SS sections, pipes etc. to be supported with documents for the quality and only SS sections and accessories shall be paid under this item	MT	1		-
102	S S Railing Supplying, fabricating and erecting Tubular Hand railing of 32 mm dia. NB medium class, SS pipes 304 mat finish/brush steel finish consisting of double ss rail with top ss rail 1 Mtr above floor level, middle rail at center and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary ss bends, ss tee joints, ss fixtures, ss fittings, anchor bolts including 6mm thick and embedded in ground, 75mm high toe guard at bottom etc.	M	100		-
103	Supplying, fabricating and erecting C class GI Tubular Hand railing of 32 mm dia. NB light class, consisting of double GI rail with top GI rail 1 Mtr above floor level and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary ss bends, GI tee joints, GI fixtures, GI fittings, anchor bolts including 6mm thick and embedded in ground, 75mm high toe guard at bottom etc. including connecting one coat of primer and two finish coats of synthetic enamel as directed. Note: Material to be provided by the contractor."	M	200		-
104	Supplying, fabricating & erecting Tubular Handrailing of 32 mm dia. N B, medium class, M S Pipes conforming to IS - 1239 of flush weld constructions & consisting of double rail with top rail 1 Mtr above floor level , middle rail at center and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary bends, tee joints, fixtures fittings, 75mm high toe guard 6mm thick at bottom, anchor bolts etc. including 1 shop coat of Shalimar or approved make red oxide primer paint conforming to IS 2074 and second coat of primer after completion of erection followed by two coats of finishing paints of approved make, colours and confirming to IS 2239 etc. complete as directed.	m	100		-
105	Providing and fixing powder coated MS wire mesh( 22 gauge) with aluminum frame etc. complete	M2	18		-
106	Providing and fixing powder coated SS wire mesh with aluminum frame etc. complete	M2	18		-
107	Providing and fixing powder coated GI mesh( 22 gauge) with aluminum frame etc. complete	M2	18		-
108	Providing & fixing Aluminium louvered POWDER COATED windows(fixed) conforming IS:1868. Main frame shall be made out of Hollow extruded sections of size 100 mm x 75 mm x 14 gauge. The louvers shall be made of 5.5 mm thick wired glass slid inside suitable aluminium 14 gauge channels fixed to main frame by 2 nos. 4 mm aluminium rivets fixed at 45 Deg.etc. complete.	M2	18		-
109	Providing, Fabricating and erecting MS gates consisting of MS angles framework (internal & external) using ISA 65x65x6 or 75x75x6 with 6mm to 8mm thk. MS joining plates, including chain-link stretched (8 gauge) tack welded over the framework with necessary hinges, locking arrangement including applying synthetic enamel paint of approved make over one coat of primer. Contractor shall use his own welding set, gas cutting set, gas, electrodes and other accessories required to complete the entire job. Rate is inclusive of all materials to be procured by the contractor.	M2	30		-
110	Providing, Fabricating and erecting MS gates consisting of MS hollow rectangular or square box sections with 6mm to 8mm thk. MS joining plates, including welding of sections as per design approved by the Owner. Fabricating the framework with necessary hinges, locking arrangement including applying synthetic enamel paint of approved make over one coat of primer. Contractor shall use his own welding set, gas cutting set, gas, electrodes and other accessories, steel scaffolding required to complete the entire job. All hollow box steel section shall be of primary manufacturer and confirm to IS 4923 requirements	MT	2		-
111	Steel work in built up tubular trusses including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete. Hot finished welded type tubes.	KG	1000		-
112	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 120 mm	EA	100		-
113	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 160 mm	EA	100		-
114	Dismantling / cutting and stacking Rolling Shutters with / without Wicket Gates including removal of angle supports etc, as directed.	M2	20		-
115	Supplying and fixing mechanical gear type rolling shutters, manually operated by means of winding handle and the shutter made out of 18 gauge x 3" (1.10 mm to 1.25 mm) mild steel laths of convex corrugation, complete with build up 4" x 1" side guides, built up bottom rails with angle iron at bottom and flat iron at top, heavy brackets, extra strong door, suspension shaft made out of new pipes leaded with high tension steel springs of best Indian spring steel wire, locking arrangements handles, painted with one coat of primer paint complete in best workmanship with top cover 3 Nos. bearing and including loading, unloading and transportation at our site.	M2	100		-
116	Supplying and fixinghand operated type rolling shutters, manually operated by means of winding handle and the shutter made out of 18 gauge x 3" (1.10 mm to 1.25 mm) mild steel laths of convex corrugation, complete with build up 4" x 1" side guides, built up bottom rails with angle iron at bottom and flat iron at top, heavy brackets, extra strong door, suspension shaft made out of new pipes leaded with high tension steel springs of best Indian spring steel wire, locking arrangements handles, painted with one coat of primer paint complete in best workmanship with top cover 3 Nos. bearing and including loading, unloading and transportation at our site.	M2	100		-
117	Providing all the materials and fixing Aluminum coated Name board of size 2.5mx1.2m (approx.) with stainless steel letters of 10" x 3" size with company's logo.	NO	6		-

118	Supplying & fixing in position anchor bolts with washers & nuts of required shape & size 6mm to 30mm dia. With necessary thread length including fixing templates etc. (Templates will not be paid for).	kg	200		-
119	Supplying and placing in position Mechanical Anchor fasteners 16 mm dia, 140 mm long including drilling the holes .(HST,HILTI make).	NO	140		-
120	Supplying and placing in position Mechanical Anchor fasteners 12mm dia. 140mm including drilling the holes .(HST,HILTI make).	NO	70		-
121	Providing and fixing single or double shuttered fully panelled POWDER COATED doors conforming to IS:1868. Main frame shall be made out of aluminum tubes of size 100mm x 45mm x 14 gauge. The shutters shall consist of 45mm x 45mm x 14 gauge top rail and styles, 95mm x 45mm x 14 gauge bottom rail and panelled with Marine plywood sandwiched between 18 gauge Aluminum sheet on both sides including necessary locking arrangement, handles on one or both the shutters, weather strip, floor springs for one or both shutters, tower bolts for one shutter etc. with pivots for each shutter including fixing necessary "PUSH PULL" signs, with rubber woolen felt sealing etc. complete. Aluminium sections to be of Jindal / Indal make	M2	35		-
122	Providing and fixing fully glazed sliding POWDER COATED aluminum windows. Outer frame shall be of size 100 mm x 45 mm x (14 gauge) anodized section of min. weight 6 Kg / 12' length. The 3 track Box Section (20 mm Series) Indal / Jindal shall consist of a) Bottom rail size 90 mm x 45 mm (14 gauge) of min. weight 5.5 Kg / 12' length. b) Sides and top rail 90 mm x 32 mm (15 gauge) of min. weight 3 Kg / 12' length. Glass shall be 6mm thick. rubber woolen felt sealing etc. complete.	M2	35		-
123	Providing and fixing CP jet spray size 12mm dia. of approved make with ISI mark	NO	20		-
124	Providing and fixing Basin mirror of size 600mmx600mm of approved make and colour including all material, tools, tackles complete	NO	20		-
125	Providing and fixing 100 x 80mm CI deep seal Nahani Trap of insect proof type with CP heavy grating and frame	EA	15		-
126	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 12mm Dia.	M	70		-
127	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 19mm Dia.	M	70		-
128	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 25mm Dia.	M	70		-
129	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 38mm Dia.	M	70		-
130	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 50mm Dia.	M	70		-
131	Providing and fixing 100 x 80mm PVC deep seal Nahani Trap of insect proof type with PVC heavy grating and frame as directed	No	7		-
132	Providing and fixing water closet squatting pan (Indian type W.C. pan ) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required : White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests (HINDUSTAN/Parryware MAKE)	EA	7		-
133	Providing and fixing white vitreous china pedestal type European water closet (Hindware make:Constellation set white) with seat & lid,10 litres flushing cistern & manually controlled device conforming to the IS-7231 with all fittings & fixtures complete including cutting and making good the walls and floors wherever required.WC pan with ISI marked white sloid plastic seat & lid heavy duty (HINDUSTAN/Parryware MAKE)	EA	50		-
134	Providing lip type urinal and flushing valve and bottle trap, lead and GI pipe connections overflow outlet pipes with mosquito proof cover including providing all the materials. etc. complete. (HINDUSTAN/Parryware MAKE)	EA	70		-
135	Providing and fixing stone ware gully traps of 9"x9" size as directed.	EA	70		-
136	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 12mm Dia.	EA	70		-
137	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 19mm Dia.	EA	70		-
138	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 25mm Dia.	EA	70		-
139	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 50mm Dia.	EA	70		-
140	Providing & Laying salt glazed stoneware pipes including providing all the materials and cement jointing but excluding excavation and backfilling including 50mm thk.M100 bedding below joints for 150mm Dia.	Rm	70		-
141	Removing, providing & replacing the broken manhole covers heavy duty CI, ISI marked with frame including finishing the top masonry with cement mortar as directed 225mm X 300mm Manhole covers should be of munal corporation approved.	EA	70		-
142	Removing, providing & replacing the broken manhole covers heavy duty CI, ISI marked with frame including finishing the top masonry with cement mortar as directed 900mm X 600mm - Manhole covers should be of munal corporation approved	NO	70		-
143	Removing , providing & fixing white glazed wash basin flatback confirming to IS 2556 (Part IV) of approved make including providing wash basin, C.I brackets, fixed to the wall with rawl plug bolts & screws and painted in two coats of white zinc paint over a coat of red oxide primer,with 15mm C.P. pillar tap as per IS 1795 (1 No.) of approved make, plug & C.P chain, 50mm dia. mosquito proof gratings, 32mm dia. C.P. waste pipe, brass stop cock as per IS 781 of bottle trap with C.P pipe pieces upto wall or floor level plus 40mm lead, waste pipe embedded floor from 32mm CP waste extension pipe to the CI waste shaft on the outside wall, complete with brass union and plumbers wiped soldered joints as directed with necessary cleaning eyes including cutting holes and chasses in the wall and making good the same in CM (1:4) etc. complete as directed. (Hindustan/ Parryware make .) Size 580mm X 450mm	EA	70		-

144	Providing and fixing 31 mm dia heavy duty CP Bottle trap matching with the existing if any	EA	70		-
145	Providing and fixing heavy dutyC P Flush valve for flat back Urinals complete matching with existing if any.	EA	70		-
146	Providing and fixing ceramic white sink including all connections, brackets,wast cupling, 32mm PVC pipe complete as directed. (Hindustan or Cera) Size 0.45m X 0.6m	EA	70		-
147	Supplying and fixing Stainless steel sink made out of best quality Stainless steel sheet of 16 guage conforming to IS 5522 having 1 1/4 " hole for drain pipe at centre of bottom plate with Stainless steel basket stainer 1 1/4 ", brass waist coupling , 1 1/2 " moulding all around and as directed for sizes 0.610 M x 0.460 M. Nirali or equivalent approved make.	EA	70		-
148	Providing and fixing PVC seat cover to European WC matching with the existing if any	EA	70		-
149	Providing and fixing heavy duty CP pillar cock - Pressmatic type to wash basin size 15mm of approved ISI make as directed.	No	70		-
150	Providing and fixing heavy duty CP Jali for nahni trap as directed of size 100mm dia.	EA	70		-
151	Providing and fixing 100mm dia CP shower with 300mm long arm .	EA	70		-
152	Providing and fixing heavy duty CP concealed <b>bib cock</b> size 12mm dia. of approved make with ISI mark as directed.	EA	70		-
153	Providing and fixing heavy duty CP concealed <b>Angle cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	70		-
154	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 12mm dia. of approved make with ISI mark as directed.	EA	70		-
155	Providing and fixing heavy duty PVC soap dispenser of standard size .	EA	70		-
156	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 20mm dia. of approved make with ISI mark as directed.	No	70		-
157	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 50mm dia. of approved make with ISI mark as directed.	No	70		-
158	Removing / dismantling old corroded GI pipe line size 12mm to 50mm dia. Work includes transportation to company store etc.	M	84		-
159	Providing all materials, services, tools, tackles, equipment, transport etc. for carrying out misc. plumbing repair works and Replacing float valve of flush tank size 12.5 mm dia.	EA	20		-
160	Providing and installation heavy duty jet spray including PVC Connector of approved make with ISI mark as directed.	EA	20		-
161	Providing and fixing heavy duty PVC high level / low level flush tank of standard size including all necessary fitting and fixtures of approved make with ISI mark as directed.	EA	20		-
162	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 12 mm dia.	No	20		-
163	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 19 mm dia.	No	20		-
164	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 25 mm dia.	No	20		-
165	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 39 mm dia.	No	20		-
166	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 50 mm dia.	No	20		-
167	Providing and fixing of PVC pipe for down take for 100 mm dia.	RM	35		-
168	Providing and fixing of PVC pipe for down take for 150 mm dia.	RM	35		-
169	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 12 mm dia	M	175		-
170	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 19 mm dia	M	175		-
171	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 25 mm dia	M	175		-
172	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 32 mm dia	M	175		-
173	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 38 mm dia	M	175		-
174	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 50 mm dia	M	175		-
175	Providing all tools & services for removing, rerouting and Refixing existing GI pipeline of 12 to 25 mm dia including all fittings required for the same.	M	70		-
176	Providing all tools & services for removing, rerouting and Refixing existing GI pipeline of 31 to 50 mm dia including all fittings required for the same.	M	70		-
177	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 12 mm dia	M	10		-

178	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 19 mm dia	M	10		-
179	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 25 mm dia	M	10		-
180	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 32 mm dia	M	10		-
181	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 40 mm dia	M	10		-
182	Providing and fixing of two way bib cock sicko, including all tools & tackles	No	10.00		-
183	Providing and fixing heavy duty CP concealed two way <b>bib cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	5.00		-
184	Providing and fixing heavy duty CP concealed two way <b>Angle cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	30.00		-
185	Providing and fixing heavy duty CP concealed two way <b>stop cock</b> size 12mm dia. of approved make with ISI mark as directed.	NO	30.00		-
186		NO	30.00		-
187	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	Litre	20000		-
188	Making chases upto 50 mm x 50mm in walls including making good and finishing with matching surface after housing G.I. Pipe etc.	M	500		-
189	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm) with necessary accessories and screws etc. complete. This item will cover a performance guarantee of 1 year, during this Guarantee period if any malfunctioning is observed the same shall be attended by the vendor within 2 day	EA	30		-
190	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete. This item will cover a performance guarantee of 1 year, during this Guarantee period if any malfunctioning is observed the same shall be attended by the vendor within 2 day	EA	30		-
191	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	Ea	50		-
192	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete. Size 50 mm	Ea	50		-
193	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately). Second class teak wood	M3	10		-
194	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (Only area of glass vision panel made in door shutter will be measured) : Rectangular or square	M2	20		-
195	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to steel windows by welding.	Kg	1000		-
196	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance $\pm 1$ mm), with wall thickness 2.0 mm ( $\pm 0.2$ mm), Extruded section profile size 48x40 mm with corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm ( $\pm 0.1$ mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame, Providing and fixing to existing door frames. 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm 0.3$ mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm 0.1$ mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification including necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places , complete as per manufacturer's specification and direction of Engineerin-charge.	M2	30		-
197	Providing and fixing stainless steel tower bolts with necessary screws etc. complete. 150 mm on existing door	EA	20		-
198	Providing and fixing stainless steel tower bolts with necessary screws etc. complete. 200 mm on existing door	EA	20		-
199	Providing and fixing stainless steel sliding door bolt with necessary screws etc. complete. 200 mm on existing door	EA	20		-
200	Providing & fixing stainless steel Door stopper with necessary screws etc. complete. Twin rubber stopper. on existing door	EA	20		-
201	Providing and fixing stainless steel door handel with necessary screws etc. complete 150 mm on existing door	EA	20		-
202	Providing and fixing stainless steel door handel with necessary screws etc. complete 150 mm on existing door	EA	20		-

203	Replacing broken window glasses (6 mm thk.) including fixing pins, weather bar and putties of approved quality (including scaffolding if required ) etc. complete.	M2	45		-
204	Providing and fixing 35 to 38 mm thick commercial flush door shutter with 1.5 mm thick laminate on both side of approved make and shade. Rate shall also include provision of 10 mm thick teak wood beading around the shutter, making it of appropriate size of existing door shutter, all the locking accessories, aldrops on both sides heavy duty brass hinges, heavy duty door closer hyper make sleek model, heavy duty 5" brass handles polishing or painting complete as directed. shutters to be fixed in existing frames.	M2	20		-
205	Providing and fixing 50 mm thick commercial flush door shutter with 1.5 mm thick laminate on both side of approved make and shade. Rate shall also include provision of 10 mm thick teak wood beading around the shutter, making it of appropriate size of existing door shutter, all the locking accessories, aldrops on both sides heavy duty brass hinges, heavy duty door closer hyper make sleek model, heavy duty 5" brass handles polishing or painting complete as directed. shutters to be fixed in existing frames.	M2	20		-
206	Providing, Erecting and Fixing Aluminum POWDER COATED fixed windows conforming to IS:1868. Main frame Shall be made out of hollow extruded sections of size 100mm*75mm*14mm gauge and panelled with 50 mm x 45 mm x 14 gauge top and bottom rails and styles, approved 5.5mm thick clear or opaque glass. All aluminum sections will be finished with anti corrosive rust proof powder coating of approved quality and shade all as per IS codes or as directed.The rate shall be include of filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly.	M2	35		-
207	Providing and Fixing Grid False Ceiling as per specificatiProviding and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. a) with Dune 600x600x16 RH-99 tiles (Tegular Edge./Board edge/Microlook Edge.) of Armstrong make. The rates shall be inclusive for making of opening for electrical fittings and AC blower and return air with appropriate supporting members. Only plan area will be payable. No deduction shall be made for opening left for AC blower and electric fittings and no payment shall be made for for providing additional supports around openings..	M2	35		-
208	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long , G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with: a) 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I.	M2	50.00		-
209	Repair to existing Gypsum board false ceiling with 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete but excluding the cost of painting as per direction of E-I-C	M2	50.00		-
210	Providing and fixing Anti static false flooring with load bearing capacity of 1200 kg concentrated load and 2000 kg /sqm distributed load, of Unitile Everest or equivalent consisting of: Stringers made out of die pressed channels 25x25x25 mm with two die pressed notches at the two ends to snap fit to the jack head for 300 mm height	M2	50		-

211	Providing, Erecting and Fixing Aluminum Anodized fixed partition fully glazed confirming to IS:1868.Main frame Shall be made out of hollow extruded sections of size 100mm*75mm*14mm gauge and panelled with approved 5.5mm thick or opaque glass. All aluminum sections will be finished with anti corrosive rust proof coating of approved quality and shade all as per IS codes or as directed. The rate shall be include of filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly as directed (Heavy duty sections)	M2	14		-
212	Providing & fixing upto 12 mm dia, 100 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
213	Providing & fixing upto 12 mm dia, 140 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
214	Providing & fixing upto 16 mm dia, 100 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
215	Providing & fixing upto 16 mm dia, 140 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
216	Making chases in walls for replacing, repairing GI conduits at all levels on vertical and horizontal faces with necessary staging to conceal GI conduits including finishing back the surface either smooth or sand faced over Brick masonry, PCC, RCC ( laying of conduit by other agency Size upto 100mm x 75 mm)	M	35		-
217	Providing, placing and fixing <b>profile pre-color coated galvalume RMP sheets or equivalent of 0.5mm</b> total coated thickness to match existing shade (bare galvalume thickness 0.47mm), <b>trough type</b> , zinc aluminum alloy coated (zinc aluminum coating not less then 150g/sqm ), MS high tensile sheet having minimum yield strength of 550MPa including coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting and DFT 5 microns over 5 micron primer on internal surface of sheeting and including all connections and matching fixtures and accessories such as but not limited to J or L bolts & hooks (8 mm, polymer coated), nuts with polymer washers, self tapping screws, protective polymer cap of matching color for bolts, should be supplied in suitable length as desired by Engineer in- charge. The sheet shall be fixed using self drilling /self tapping GI coated screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, etc., complete as per manufacturers recommendations for Sheeting for roof/Side etc.	M2	5000		-
218	Providing, placing and fixing <b>plain pre-color coated galvalume RMP sheets or equivalent of 0.5mm</b> total coated thickness to match existing shade (bare galvalume thickness 0.47mm), <b>plain sheet for flashing , ridges</b> , zinc aluminum alloy coated (zinc aluminum coating not less then 150g/sqm ), MS high tensile sheet having minimum yield strength of 550MPa including coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting and DFT 5 microns over 5 micron primer on internal surface of sheeting and including all connections and matching fixtures and accessories such as but not limited to J or L bolts & hooks (8 mm, polymer coated), nuts with polymer washers, self tapping screws, protective polymer cap of matching color for bolts, should be supplied in suitable length as desired by Engineer in-charge. The sheet shall be fixed using self drilling /self tapping GI coated screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, etc., complete as per manufacturers recommendations for Sheeting for roof/Side etc.				-
219	<b>P/F of corrugated GI Sheets</b> Providing & fixing 16 gauge corrugated GI sheet on roof & cladding with GI bolts, nuts, washers, sealant on bolt etc.	M2	100		-
220	<b>FRP Sheets</b> Providing & fixing new & approved quality <b>corrugated</b> FRP sheets of green colour, thickness 3 mm with new GI bolts, nuts, washers etc.	M2	100		-
221	Providing and fixing fully glazed sliding POWDER COATED windows. Outer frame shall be of size 100 mm x 45 mm x (14 gauge) anodised INDAL section of min. weight 6 Kg / 12' length. The 3 track Box Section (20 mm Series) Indal shall consist of a) Bottom rail size 90 mm x 45 mm (14 gauge) of min. weight 5.5 Kg / 12' length. b) Sides and top rail 90 mm x 32 mm (15 gauge) of min. weight 3 Kg / 12' length, and panelled with approved 5.5mm thick clear or opaque glass. including civil works for filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly.	M2	100		-
222	Providing all materials, tools, service etc. including providing and erecting scaffolding at all heights and carrying out Plaster of Paris punning (average 6 mm thk.) to existing walls as well as newly plastered surfaces in perfect line and plumb to prepare them to receive Acrylic emulsion paint.( Walls and Ceiling ) (Internal surfaces) including necessary surface preparation if required	M2	350		-
223	Providing all materials ,tools, tackles such as wire brush, putty blade,sand paper etc. for removing all loosely adhering material from the internal surface of existing wall, ceiling , plastered surface etc. & ensuring substrate should be clean, free from dust, grease & loose material. Moisten the wall with sufficient quantity of clean water prior to application of 1st coat of Birla White Wallcare Putty or equivalent. Allow the 1st coat surface to dry for at least 3 hrs after that rub the surface gently with the putty blade in order to remove all loose particles. Apply 2nd coat of putty, allow the surface to dry for 10-12 hrs after that rub the surface gently with the putty blade in order to remove all loose particles. Total thickness of the coats should be limited to average 1.5 mm thk.This also includes carrying out the work in perfect line and plumb & prepare them to receive paint.	M2	350		-
224	Providing & laying hume pipe 150 mm Dia confirming to IS 458 (Class NP3) in line and level in required slope or as directed including providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), M 10 concrete below joints but excluding excavation .	M	50		-

225	Providing & laying hume pipe 300 mm Dia confirming to IS 458 (Class NP3) in line and level in required slope or as directed including providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), M 10 concrete below joints but excluding excavation .	M	50		-
226	"Providing all materials, tools, tackles & services for Rehabilitation of RCC Structures as following a.) Repair damaged concrete members including stripping dilapidated and loose concrete, scrapping reinforcement with wire brush and cleaning the same with speciality chemicals( Rusticide SS ) in one or more coats as per manufacturer's specifications. b.) Providing and applying speciality chemicals ( Polyalk Fixoprime ) in recommended proportions to steel bars & exposed concrete in one or more coats as per manufacturer's specifications. c.) Providing and applying speciality chemicals ( Polyalk EP ) in recommended proportions with 1:4 mortar with quartz sand in one or more coats for average thickness of 25 mm as per manufacturer's specifications etc complete as directed.	M2	18		-
227	<b>Protection of RCC Structures by Rehabilitation</b> a)Providing all necessary materials & services to repair damaged concrete members including stripping dilapidated and loose concrete, scrapping reinforcement with wire brush and cleaning the same with speciality chemicals (Rusticide SS) in one or more coats as per manufacturer's specifications. b.) Providing and applying specialty chemicals (Polyalk Fixoprime ) in recommended proportions to steel bars & exposed concrete in one or more coats as per manufacturer's specifications. c.) Providing and applying specialty chemicals (Polyalk EP) in recommended proportions with 1:4 mortar with quartz sand in one or more coats for average 50 mm thickness as per manufacturer's specifications"	M2	35		-
228	Providing and fixing C class GI water pipes, confirming to IS:1239, and galvanized as per IS-4736, in vertical or horizontal positions at all heights including cutting, treading, bending and jointing with necessary C(Heavy) class GI fittings, such as tees, bends, unions, elbows, reducers, couplings, sockets flanges, plug ends, check nuts, etc. cuttings holes, chases in the walls or floors and making good the same with CM 1:4 providing necessary GI malleable clamps and supports and testing the line as specified etc. complete (rate inclusive of fittings and special) 75 mm dia	M	50		-
229	Providing and fixing C class GI water pipes, confirming to IS:1239, and galvanized as per IS-4736, in vertical or horizontal positions at all heights including cutting, treading, bending and jointing with necessary C(Heavy) class GI fittings, such as tees, bends, unions, elbows, reducers, couplings, sockets flanges, plug ends, check nuts, etc. cuttings holes, chases in the walls or floors and making good the same with CM 1:4 providing necessary GI malleable clamps and supports and testing the line as specified etc. complete (rate inclusive of fittings and special) 100 mm dia	M	18		-
230	Supplying & laying of Siporex block for wall 230mm thick and above in cement mortar(1:4) including scaffolding at all heights, curing, raking joints, etc.	M3	7		-
231	Making core cuts in RCC wall/slab etc. up to 100mm to 350mm Thickness 250 mm dia	NO	10		-
232	Making core cuts in RCC wall/slab etc. up to 100mm to 350mm Thickness 150 mm dia	NO	10		-
233	Supplying, fabricating, transporting to site and erecting GI grating in position hot dip galvanized members / structures fabricated as per approved drawings including galvanizing the sections (Zinc coating minimum 80-100 micron DFT) / accessories as per specifications and touch up zinc paint after galvanizing in areas where needed / approved after erection.(Grating size 500shall be as per drawing.All gratings will be supplied by Agency. Agency shall use his own all the tool & tackles to complete the entire work, as per the direction of the site engineer. Agency must approve the sample of grating by TATA Power representative before manufacturing of all the gratings.	Ton	3		-
234	Carefully opening the cracks in plaster, cleaning the cracks with electrical air blower/water & filling the cracks with polymer modified cementitious mortar in proportion 1:5:15 ( i.e. Polymer: cement: well graded quartz sand by wt.) including polymer bonding coat & seal coat, curing etc. complete. Note: Width of cracks upto 6 mm and depth upto 20mm.	M	18		-
235	Providing material, labor & services for oiling and greasing of shutters. Rates are inclusive of providing steel scaffolding	No	21		-
236	Providing all material, cleaning the roof surface and carrying out 3mm thick membrane (approved make) water proofing treatment as under below 1) Filling the cracks, Holes etc., with Tar Plastic (Cold Water Proofing Compound) 2) Applying oil primer T-10 UNDER ENTIRE SURFACE (0.3 liters per sqm) 3) Applying 3 MM thk. approved make modified water proofing membrane by torch welding with 100mm*100mm side and end laps without airgases 4) Applying one coat of bituminous base silver shield paints over entire work of membrane Note : Contractor should give 5 years guarantee.	M2	14		-
237	Providing all tools, tackles & equipment's necessary for trimming of tree branches inclusive providing and maintaining scaffolding till trimming activity, provision of fall arresting jali, making access to branches, ladder, cutting tools, crane if required, etc. complete as per requirement of job and instructions of engineer in charge. The rate should be inclusive of trimming tree, collecting & stacking debris near site & dispose off the debris in approved ground. Statutory payment will be paid by the Owner against official demand notes received from statutory bodies.	No	250		-
238	Cleaning of septic tank , including chambers with gully sucker & providing plumbing services including all required tools, tackles, materials & fixtures including loading, unloading & transpotation up of sewerage to identified disposal site etc complete as directed,	No	14		-
239	Cleaning of choked sewage chambers by providing plumbing services including all required tools, tackles, materials & fixtures including loading, unloading & transpotation up of sewerage to identified disposal site etc complete as directed,	Ea	14		-
240	Making soak pit 2.5 m diaeter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diaeter, 1.8 m long complete as per standard design. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	5		-
241	Cleaning of O/H water storage tank up to 1000 ltrs. i/c cleaning with potassium permanganate / bleaing powder and finally with clear water complete.	EA	20		-

242	Providing all necessary material, tools, tackles & services for supplying & laying MS grating of sizes and of the design as per drawing approved by Owner,	MT	2		-
243	Providing & applying two coats of Elastomeric coating having 200-300% elongation over a coat of primer over properly prepared plaster surface including scrapping all loose material on existing plastered surface etc.	M2	100		-
244	Supplying, Providing and laying, un-coursed random rubble masonry in cement mortar 1:5 with approved local stones of good quality for walls / footings, etc. and as fill under foundations in true line and levels, including curing, de-watering wherever necessary, raking of joints etc. complete for work below ground/grade level at all depths and grade level up to plinth etc.,	M3	21		-
245		M2	35		-
246	Making khurras 45 x 45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x 1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete	EA	20		-
247	Providing and fixing interlocking concrete paver blocks of 80mm thk. of M40 grade. Concrete paver blocks shall be uniformly shaped (monolithic #single layer precast concrete blocks) of specified color and pattern as per technical specification, placed on avg. thickness of 50 mm uniformly graded river sand cushioning with proper compacting with mechanical compactor with the proper level, grade and camber etc. complete as directed. The side joints / Open ends should be filled / sealed by M-25 grade concrete as required etc. he testing of paver blocks shall be arranged by the contractor at the time of approval and during execution of job at their own cost.	M2	100		-
248	<b>Providing 60 feet long Man lifter upto 60 feet long for civil work including</b> providing services for civil work irrespective of height and location of the work complying with all safety rules and procedures of company practices followed in company complete as directed by the Owner	day	75		-
249	Providing services for removal of choke from sewage line using municipal gang with sucking machine	EA	50		-
250	Providing all your materials , tools tackles marking and painting of strip, width 75mm to 150 mm, for road / passage marking with synthetic enamel, brushe, solvent, tools and tackles, skilled painter for cleaning and preparing the surface by scrapping sand papering to remove loose scale, making the surface plain and marking the strip, painting two coat over a coat of primer in perfect strip and painting two coat in perfect alignment marking	M2	50		-
251	Providing all your materials , tools tackles marking and painting of speed breaker, zebra crossing, kerb stones, skilled painter for cleaning and preparing the surface by scrapping sand papering to remove loose scales, grease, making surface plain and marking the strips and painting in two coat of synthetic enamel paint over a coat of primer in perfect alignment	M2	20.00		-
252	Providing and fixing of roller blind for window, providing all equipment, material, tools, tackles etc. for fixing blinds for windows of approved make and shade etc.	M2	50		-
253	providing and fixing of blind, type: vertical, width: 75 mm, providing all equipment, material, tools, tackles etc. for fixing blinds of approved make and shade etc.	M2	50		-
254	Providing and fixing of sun control film of approved make like Garware or equivalent including providing all equipment, material, tools, tackles etc. for fixing sun film without any air bubbles / scratches.	M2	50		-
255	Providing and fixing fibre sheet of 3 mm thickness inclusive of all fastners, nuts, bolts etc and inclusive of labour complete	NO	10		-
256	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 100 m outside of periphery of the area cleared.	M2	7.00		-
257	Supplying, diluting and injecting chemical emulsion PRE CONSTRUCTIONAL ANTI- termite treatment and creating a continuous chemical barrier under and all around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surrounding of pipes and conduits etc. complete as per IS codes & specifications (plinth area of the building at ground floor only shall be measured for payment) a) Chlorphyriphos Emulsifiable concentrate 20% with 1% concentration Note : Contractor shall have to furnish from the specified agency carrying out the work under anti-termite treatment a written corporate guarantee on non-judicial stamp paper of Rupees 100 in favour of Owner for the satisfactory performance of the treatment for a period of ten years	M2	200.00		-
258	Supplying, diluting and injecting chemical emulsion POST CONSTRUCTIONAL ANTI-termite treatment creating a continuous chemical barrier i/c all the wood work, door frames, wooden cabinets, almiraahs, wall mounted cabinets, work stations, wooden partitions etc. (floor area of the building only shall be measured for payment) a) Chlorphyriphos Emulsifiable concentrate 20% with 1% concentration. Note : Contractor shall have to furnish from the specified agency carrying out the work under anti-termite treatment a written corporate guarantee on non-judicial stamp paper of Rupees 100 in favour of Owner for the satisfactory performance of the treatment for a period of ten years	M2	200.00		-
259	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ±1mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineerin-charge. Extruded section profile size 48x40 mm	M	35.00		-

260	Providing and fixing to existing door frames. 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm$ 0.3 mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm$ 0.1 mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places	M2	10.00		-
261	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 120 mm	EA	100.00		-
262	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 160 mm	EA	100.00		-
263	Providing and fixing IRC fabric (welded mesh) of size 35x75 mm of required guage to the frame of MS angles, channels, tees, flats etc. at all floor levels including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer as required. In frames, gates etc. (Cost of MS frame will be paid separately). Fixed to steel frames by welding.	Kg	5000.00		-
264	Providing and fixing stainless steel ( Grade 304) gate, grill, railing etc. made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, including fixing the gate with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose weight of stainless steel members shall be considered including fixing s.s. accessories such as nuts, bolts, fasteners etc.)	Kg	500.00		-
265	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. Single socketed pipes including all fittings, clamps, spacer etc.. 110 mm dia	M	50		-
266	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. a) single socketed pipes. including all fittings, clamps, spacer etc. 150 mm dia.	M	50		-
267	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long , G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with: a) 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I.	M2	50		-
268	Providing and fixing Vitreous china Urinal partition of standard design and required color, of Hindustan / Parryware or eq. make using screws etc complete	EA	10		-
269	Providing and fixing 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with CP brass screws and washers complete.	EA	10		-
270	Providing and fixing CP brass Jet and accessories to english type WC of approved quality and make complete.	EA	10		-
271	Providing and fixing CP brass bottle trap of approved quality.	EA	10		-
272	Providing and fixing low height opaque partition 54mm thick from floor to desired height (below false ceiling) consisting of 45x45mm 1st class kail wood frame work with a fire retardant paint applied on it forming frame work at 450-600 C/C nominal in both directions fixed rigidly in flooring and side support by screws/GI cleat etc. The frame work shall have one side 8/9mm thick commercial ply and gap in frame work filled with 45mm thick up tuiga mineral fibre wool with a density of 50 kg/M <sup>3</sup> , exterior sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kal wood runner and making provision for laying conduits switches box with 8 x 75 mm teak wood or laminated skirting, polishing etc complete.	M2	12.00		-

273	Providing and fixing suspended Gypsum board ceiling (straight, vertical & curved) consisting of fixing GI perimeter channels of 27mm x0.5mm thick having one flange of 20mm and another flange of 30mm along with perimeter of the ceiling, screws fixed to RCC/ Brick/foam block walls/ gypsum board partitions with the help of rawl plugs and screws. The suspending GI intermediate channels of size 45x0.55mm th. With two flanges of each from the soffit @1200mm centre with GI hangers of 25mm x 0.5mm thick Fixed to soffit with GI cleat and steel Expansion fasteners and to intermediate channel with GI nut and bolt. Ceiling section of 0.5mm thickness having knurled wedge of 51.5 mm and two flanges of 26mm each with lips of 10.5mm then fixed to the intermediate channel with the help of connecting clips and in direction perpendicular to the intermediate channel at 450mm centers, 12.5mm th. Tapered edge gypsum plaster board (confirming to IS 2095-1982) is then fixed with screws to ceiling section with 25mm dry screws at 230mm centers at the underside of ceiling section framing. Screws to be fixed mechanically either with screw driver or drilling machine with suitable attachment, providing angle beads and edging beads wherever necessary, finishing even appearance. P/f trap doors made of laminated boards with wooden frames, p/f wooden shadow battens (holloc wood, black enamel painted - 25x40mm) at wall peripheries and ends, extra frame work for fixing lights, making cutouts for electrical / HVAC / plumbing works etc. complete.	M2	12.00		-
274	Providing and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. a) with Dune 600x600x16 RH-99 tiles (Tegular Edge./Board edge/Microlook Edge.) of Armstrong make	M2	17.00		-
275	Providing and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. b) with Ultima 600x600x19 RH-95 tiles (Tegular Edge./Board edge/Microlook Edge) Of Armstrong make	M2	12.00		-
276	P/F full ht. in approved pattern opaque / partly glazed (with 5.5 mm thk.glass fixed with lnd class teak wood beading ) partition 63-65 mm thick from floor to false ceiling consisting of 45x45mm 1st class. kail wood frame work with a fire retardant paint applied on it forming frame work at 450-600 c/c in both directions fixed rigidly in flooring and ceiling by screws/GI cleat etc. The frame work shall have on both sides 9mm thick commercial ply and gap in between filled with 45mm thick UP tuiga mineral fibre wool of density 50 kg/M³, exteriors sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kail wood runner and making provision for laying conduits switches boxes with 8 x 75 mm teak wood or laminated skirting , polishing etc complete, as per instruction of Engineer in charge.. (Any frame work beyond partition height shall be paid extra)	M2	12.00		-
277	P/F full ht. in approved pattern 55 mm thick from floor to false ceiling consisting of 45x45mm kail wood wood frame work with a fire retardant paint applied on it forming frame work at 450-600 c/c in both directions fixed rigidly in flooring and ceiling by screws/GI cleat etc. The frame work shall have on one sides 9mm thick commercial ply,exteriors sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kail wood runner and making provision for laying conduits switches boxes with 8 x 75 mm teak wood or laminated skirting , polishing etc complete, as per instruction of Engineer in charge..	M2	7.00		-
278	P/F toilet's & pantry's counters underneath fascia of 300mm wide of desired length made up of 19mm thick commercial Board with 1.0mm laminate on user side and with balancing white on other side with 4 mm second class teak margin on top and bottom end fixed with kail wood batten of cross section 45x45mm along the horizontal length of fascia and of 45x45mm along the two extreme vertical ends, if required, (the cost of frame shall be paid extra) completed in all respect.	M	3.00		-
279	Chipping , cleaning of concrete from columns, beams and slab manually including scaffolding as directed by Engineer – in - charge and disposal of malba with in 50 m lead.	M2	40.00		-

280	Providing & fixing L shaped modular workstation fixed on medium ht partitions (MHPs) of 45mm thk panel based partition system of 1200mm ht having approved quality Aluminium section, rigid framework. The partitions shall have two concealed raceways (at bottom and mid place) in steel and covered in extruded aluminium powder coated and ABS plastic caps. The panel should have a combination of 9mm thk pre laminated soft pin up boards, and white board with matching skirtings and aluminium powder coating top trim on the top of the partition. Glass separator of 8mm thk with polished edge to be fixed between the two work tops. The work top made of 25mm thk pre laminated particle board of approved make and quality and balancing laminate of approved thickness on the unexposed surface. The work top shall be 600mm deep and are to be fixed on the partitions at 750mm ht from the FFL. All the exposed edges to have PVC edge band, the work top should be well matched in profile at corners, etc. (Size 1500 L x 1500mm W x 750mm H.) and Providing pedestal drawer units of overall dimensions of 400mm width, depth 450mm and ht 725mm having 3 drawers with locking arrangement. The inner drawer should be made of pre laminated particle board of 18mm and smooth sliding telescopic arrangement. The pedestal drawer unit shall have 18mm thk pre laminated matching and approved colour. The overall unit shall have adequate provision fixed underneath the work tops at desired locations, thereby also supporting the work tops at such places directly and neatly. with prefixed Keyboard Tray with Telescopic slides made up of ABS plastic body	EA	1.00		-
281	Providing and fixing 45mm thick panel based partition system of 1200mm ht. having approved quality Aluminium section, rigid frame work. The partition shall have two concealed raceways (at bottom and mid place) in steel and covered in extruded aluminium power plastic caps. The panel should have a combination of 9mm thick pre laminated board, soft pin up board etc. with matching skirtings and aluminium powder coating top trim on the top of the partition complete	M2	1.00		-
282	Providing and Fixing 18mm thick pre laminated gable end fixed below the work top to balance the same. The exposed edges shall be covered and sealed with 2mm thick PVC edge bending	M2	1.00		-
283	P/P circular meeting table of 1500 mm dia - 760 mm(ht) top made up of 19mm thick commercial block board with 2.0mm thk. top veneered, with 25x30mm second class teak moulding, finished in stained spirit polish with water proof melamine finish, resting on circular shape pedestal of 900 dia made up of 50x50 mm hard wood frame work placed at a distance of 400 – 450 mm c/c in both directions, wrapped with 3mm flexible ply in layers, laminated from outer exposed side resting on 100mm wide skirting, complete in all respect.	EA	2.00		-
284	EXECUTIVE TABLE: Providing & fixing in position consisting of the followings:Top made out of 19mm comm. board, with second class teak wood moulded edging of size 32x 50 mm, with Treated wood support fr. of size 45x50 at 450c/c.The apron structure is made of 19mm th. comm. board with inner frame work of tr. wood of size 40x50mm at nominal 450c/c, with extra frame for the tapered corner edges, fixed to table top frame work. The apron and table top is to receive 1.0 mm lamination. Skirting band shall be of size 12x100mm with moulded top edge. The inner side of the apron shall have 12mm comm ply from inside to the frame work to provide finished surface. The drawer unit structure is made out of 19mm comm. bd. with drawers facia and inner structure of 115x12mm teak wood with base ply of 6mm ply with the facia edges having 12x10mm moulded beading and to receive 1.0 mm th. laminate same as the table. The table unit is to be melamine polished water proof matt finish.The drawers are to be sliding on nylon runners in aluminium channels, locking arrangement handles, brass hinges foot-rest etc.a) 1800x750x750 mm	EA	2.00		-
285	EXECUTIVE TABLE: Providing & fixing in position consisting of the followings:Top made out of 19mm comm. board, with second class teak wood moulded edging of size 32x 50 mm, with Treated wood support fr. of size 45x50 at 450c/c.The apron structure is made of 19mm th. comm. board with inner frame work of tr. wood of size 40x50mm at nominal 450c/c, with extra frame for the tapered corner edges, fixed to table top frame work. The apron and table top is to receive 1.0 mm lamination. Skirting band shall be of size 12x100mm with moulded top edge. The inner side of the apron shall have 12mm comm ply from inside to the frame work to provide finished surface. The drawer unit structure is made out of 19mm comm. bd. with drawers facia and inner structure of 115x12mm teak wood with base ply of 6mm ply with the facia edges having 12x10mm moulded beading and to receive 1.0 mm th. laminate same as the table. The table unit is to be melamine polished water proof matt finish.The drawers are to be sliding on nylon runners in aluminium channels, locking arrangement handles, brass hinges foot-rest etc.b)1500x750x750mm	EA	2.00		-
286	P/P Executive table of size 1800x900x750mm (ht) rectangular in with following components. Top made up of 30mm thick MDF board with sides from user end and visitor i.e along full length of top, ends in full round post formed in flex as per manufacturer specification and in back with balancing white, with cable manager, modesty panel 450mm wide in 18mm MDF board edges at both end full round circle post formed with flexes as per specification, resting on drawer unit and side unit at each end with provision of computer key tray. Drawer unit made up of 18mm thick MDF board Boxed from all three sides and top resting on 100mm wide recessed laminated skirting of size 300x600x760 mm (ht) with one No. drawer unit of 130mm wide running on side runner and rest in shutter (18mm MDF) with both ends half round rounded off post formed with flex as per manufactures specification and rest from inside in 1 mm white glossy laminate, complete in all respect in terms of concealed hinges, Magnet, locks, handles etc. Side units made up of 18mm thick MDF board , boxed from all three sides and top divided in to three parts , all laminated with 1mm glossy white laminate from inside; with first two horizontal shelves in 12mm MDF board post formed with full round from user side with sliding shutter made up of 18mm MDF board both end half round rounded off in post forming from user side and remaining in balancing white shutter running on slide, brand hanfa on PVC guidelines and PVC channels color brown with recessed handle, key etc. complete in all respect and remaining portion under table top opened for CPU, from front side, rest boxed, laminated from inside all resting on 100mm wide laminated slarting complete in all respect in terms of accessories.	EA	2.00		-

287	Storage unit/Side cabinet, filling cabinets consisting of 19mm thick commercial board structure, partitions, shelves, back with top moulding of 40x40mm and skirting of size 12x100mm with moulded edge. The shutters of divisions as per design shall be made of 1.0mm laminate and shutter edges to have 32x12mm moulding all around. Drawers construction shall be similar to that of the table. All exposed surface, top sides, finished in 1.0mm lamination of approved shade and texture. Brass hinges, brass ball catcher, locks to all shutters, melamine water cut matt finish, complete as per details (ii) 1050x450x675mm	EA	2.00		-
288	FMC (Low ht.) Providing making and fixing filing cabinets firmly fixed to the wall / partition and grouted to floor, 375 -450 mm deep comprising of 19 mm commercial board for shelves, bottom, shutters, apron, with all exposed of the cabinet with 1.0mm thk. lamination as per approved texture design including skirting 75 to 100 mm high laminated, all cut edges of shutter to have 25x12mm moulded teak lipping, All hardware of brass plate hinges, locks, with all wooden surface to be stained spirit polished with melamine finish. Interior of the Cabinets to have 3 coats of synthetic enamel paint with a coat of primer and back side should have 9 mm thick ply with primer. (measurement will be made for front elevation of the cabinet) a) 19 mm commercial board top with 1.0 mm thk. laminate	M2	2.00		-
289	FMC (fl to ceiling) Providing making and fixing filing cabinets firmly fixed to the wall / partition and grouted to floor, 375 -450 mm deep comprising of 19 mm commercial board for shelves, bottom, shutters, apron, with all exposed of the cabinet with 1.0mm thk. lamination as per approved texture design including skirting 75 to 100 mm high laminated, all cut edges of shutter to have 25x12mm moulded teak lipping, All hardware of brass plate hinges, locks, with all wooden surface to be stained spirit polished with melamine finish. Interior of the Cabinets to have 3 coats of synthetic enamel paint with a coat of primer and back side should have 9 mm thick ply with primer. FMC (fl to ceiling) (measurement will be made for front elevation of the cabinet) a) 19 mm commercial board top with primer	M2	2.00		-
290	CONFERENCE ROOM TABLE.: Conference room table oval shaped, consisting of the followings: Top is made of 19mm comm grade board, with base frame of treated wood of size 50x 40 mm at nominal distance of 550-600mm in both directions. The table top is to have edging of moulded second class teak of size 45 x 60mm all along the length of the top, is to be rendered with 1.0 mm th. lamination of approved shade as directed. The base pedastal is 'T' shaped -2 nos., fixed to the frame work of table top, comprises of hard wood framework of size 32x40mm at 450-500 c/c, with extra frame at the rounded edges, and at the skirting lvl., The frame work of the base pedastal is to have 19mm block board onto both sides of frame work, with t.w. moulded edge frame of size 70mm x 40mm at the vertical and the bottom edge. the exposed surface is to be rendered with 1.0 mm lamination of approved shade and texture. The table is to have stained spirit polish with water cut melamine finish. (ii) OVERALL SIZE 2100X 1050X750MM HIGH	EA	2.00		-
291	P/P drawer unit of size 770x450x730mm (ht) made up of 18mm thick MDF board, boxed from all three sides & top, inside laminated with 1.0mm white glossy, Double Shutter, edges rounded off exposed surface post formed with flex as per manufacture specification of approved shade and rest from inside with balancing white as per manufacturer specifications resting on 100mm wide recessed laminated skirting with one intermediate horizontal shelf, complete in all respect in terms of concealed hinges, handles, magnets locks etc. (Make: Godrej/Hettich))	EA	2.00		-
292	Providing and fixing and placing in position three drawers unit of size 415x450x725mm including hardware fitting half crank hinges brass handle multipurpose lock Godrej/Hettich make drawer channel etc. all complete as per item Nos 60-62 and as directed by EIC.	EA	2.00		-
293	Conference Table: (3000x1000): S&I Conference Rm. Table 40 mm thk formed out of 19 mm thick board top and 6mm thk ply bottom with filler piece to achieve 40mm thk. All edges to be strengthen in requisite width to form a profile of 40mm edges to receive moulding out of wood 40x40 mm matching to veneer as per detail and approval of Client. Top shall be finished in patterned veneer with grains/inlays as per details with 3 or more coats of melamine spray polish and fixed on drum pedestals as per design and detail of architect.	EA	2.00		-
294	Providing and fixing 12 mm thick toughened glass door of required size and design with patch fitting, 18" long heavy duty steel handle with necessary screws and floor spring, door lock (ozone/doorset make) etc. complete.	M2	10.00		-
295	Providing and fixing 12 mm thick toughened glass partition r of required size and design with patch fitting and associated works etc. complete.	M2	30.00		-
296	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	300.00		-

297	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	220.00		-
298	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side	M2	45.00		-
299	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides.	M2	45.00		-
300	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item) With float glass panes of 5.5 mm thickness	M2	30.00		-
301	Repairing of aluminum doors/windows/ventilators by changing damaged butt hinges, screws i/c dismantling and refixing the leaf, tightening of corner screws etc. complete job. For repairing up to three leafs at one location (Rate per leaf of any size).	EA	20.00		-
302	Fixing of available aluminium partition with glass and board including screws, transportation to site etc. complete in all respect as directed by EIC	M2	15.00		-
303	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item); With float glass panes of 5 mm thickness	M2	12.00		-
304	Providing and fixing 12 mm thick toughened glass door of required size and design with patch fitting and floor spring (ozone/doorset make) etc. complete.	M2	9.00		-
305	Providing and fixing handle (18" long) of Ozone/doorset make for toughened glass door with necessary screws etc. complete.	EA	8.00		-
306	Providing and fixing aluminium hinges upto 150 mm in aluminium doors / windows / ventilators i/c screws etc. complete	EA	12.00		-
307	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : b) For fixed portion Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15). With Champagne colour anodising.	Kg	200.00		-
308	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15) with champagne colour	Kg	200.00		-
309	Providing and fixing aluminium Handle for RHS/LHS aluminium windows of similar finish as for window including cleats, screws etc complete	EA	25.00		-
310					-
311	Pruning the branches of tree as required including arrangement of ladder, axe, saw etc to complete the job including removing of vegetation from site to the dumping yard upto any lead and lift.	EA	20		-
312	Proving all your equipment, tools and tackles and rendering services of Tree trimmer along with helper and consumables for trimming , pruning, cutting of branches required for lighting , safety purpose as per requirement at site complete as per direction of Owner.(The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	day	15		-

313	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x 2mm and braced with flat iron diagonals 20x5 mm size with top and bottom rail of T-iron 40x40x6mm with 40mm dia, steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles including applying a priming coat of approved steel primer.	M2	10		-
314	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x0.90 mm M.S. laths with 0.90 mm thick top cover	M2	10		-
315	Providing and fixing IRC fabric (welded mesh) of size 35x75 mm to the frame of MS angles, channels, tees, flats etc. at all floor levels including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer as required. In frames, gates etc. (Cost of MS frame will be paid separately). Fixed to steel frames by welding.	KG	75		-
316	Providing & Fixing asbestos cement 6mm thick corrugated sheets roofing up to any pitch and fixing J or L hooks, bolts and nuts 8mm dia. G.I. plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete (excluding the cost of purlins, rafters and trusses), including cutting sheets to size and shape wherever required.	M2	200.00		-
317	Providing and fixing ridges and hips in asbestos cement sheet roofing with suitable fixing accessories or self drilling fastener and EPDM washer etc. complete. Plain ACC ridges	M	100.00		-
318	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for therequired duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineerin- charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding. As per the safety requirement indicated in the safety manual of Owner. Note: - This item to be executed for work to be done by other agency as [er the requirement of Owner complete as directed.	M2	500		-
319	Injecting approved epoxy system into cracks at required pressure, cutting of nipples etc complete. (weight of epoxy shall be measured)	Kg	20.00		-
320	Injecting cement/cement sand slurry into cracks at required pressure, cutting of nipples etc. complete (weight of cement shall be measured)	Kg	90.00		-
321	Providing, drilling and inserting injection nipples along cracks linesor as directed by E.I.C for epoxy grouting or cement/cement sand slurry grouting.	EA	180.00		-
322	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : 150x100 mm P type. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	5.00		-
323	Providing and fixing square-mouth S.W. gully trap grade class SP-I complete with C.I. Grating brick masonry chamber with water tight C.I. Cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design: 180x150 mm P type. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	3.00		-
324	Electrical Works				-
325	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.- Group A	Point	400.00		-
326	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.-Group B	Point	100.00		-
327	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required-Group C	Point	50.00		-
328	Wiring for light point /fanpoint/exhaust fan/call bell point with 2X1.5 + 1X1.5 Sq mm PVC insulated copper conductor wires in recessed/surface PVC conduite,with modular switch,modular plate,suitable G.I box and earthing the point with 1.5 sq mm copper conductor wire etc as required. (Excluding of Ckt wiring from D.B to switch boards)Single light point controlled by a 6Amps modular type switch.(e) Three light points controlled by a 6Amps modular type switch.	EA	25.00		-
329	Wiring for light point /fanpoint/exhaust fan/call bell point with 2X1.5 + 1X1.5 Sq mm PVC insulated copper conductor wires in recessed/surface PVC conduite,with modular switch,modular plate,suitable G.I box and earthing the point with 1.5 sq mm copper conductor wire etc as required. (Excluding of Ckt wiring from D.B to switch boards)Single light point controlled by a 6Amps modular type switch.(f) four light points controlled by a 6Amps modular type switch.	EA	25.00		-
330	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 1X 1.5 Sqmm	M	500.00		-

331	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3 X 1.5 Sqmm	M	1500.00		-
332	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 2.5 Sqmm	M	3000.00		-
333	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 4 Sqmm	M	2000.00		-
334	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 6 Sqmm	M	100.00		-
335	WIRING 4x10+2x6 sq mm Supply and drawing of following sizes of PVC insulated stranded copper conductor wires of 1100 Volts grade in existing conduit, pipe including connection/termination etc as required.(e) 4x10+2x10 sq mm	M	200.00		-
336	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 16 sq. mm + 2 X 6 sq. mm earth wire	M	50.00		-
337	Providing and fixing of plug - in type telephone socket outlet (RJ-11) with G.I.outlet box and cover plate complete as required. Single plug in type	EA	100.00		-
338	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required- 4 Pair	M	2500.00		-
339	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required- 50 Pair	M	100.00		-
340	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 20 mm	M	200.00		-
341	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 25 mm	M	2500.00		-
342	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 32 mm	M	75.00		-
343	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 40 mm	M	100.00		-
344	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 50 mm	M	100.00		-
345	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 5/6 amps switch	EA	25.00		-
346	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 2 way 5/6 amps switch	EA	50.00		-
347	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 15/16 amp switch	EA	50.00		-
348	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 3 pin 5/6 amp socket outlet	EA	50.00		-
349	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 6 pin 15/16 amp socket outlet	EA	50.00		-
350	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 1 -2 Module	EA	100.00		-
351	Supply and fixing of 6/16 Amp switch, sockets of MK make modular type in PVC/GI box complete in all respects with testing & commissioning.	EA	150.00		-
352	SWITCHED SOCKET OUTLETS (6 A AND 16 A) Supplying and fixing of a set of 2 Nos 6 A Socket outlets and one no 16 A Socket controlled by 16 A Master Switch of MK make including GI/PVC box, connections complete in all respect	ST	25.00		-
353	SWITCHED SOCKET OUTLETS (6 A) A set of 2 Nos. 6 A switched socket outlets (FOR UPS )in a box, with providing & fixing 2 nos. 2/3 pin 6 A switches & socket outlets( But switch& socket should be at defferent possition or as required)..	ST	200.00		-
354	Supply & fixing of a set of one 6 amp switch & socket of modular type with suitable size G.I box.	EA	300.00		-
355	Supply & fixing of anchor make batten typ lamp holder & one no 11 watt CFL	EA	20.00		-
356	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as requireds	EA	100.00		-
357	INDUSTRIAL SOCKET OUTLETS (25/32A DPMCB) Supply, installation, testing & commissioning of industrial type plug and socket outlet with SP/TPN MCB (10 KA motor duty) mounted on a sheet steel enclosure including termination, earthing etc as required . (b) Supply and fising of 25/32 Amp DP MCB (C series) of approved make in MS encloser	EA	100.00		-
358	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	EA	25.00		-
359	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB omplete with connections, testing and commissioning etc. as required. Single pole	EA	250.00		-
360	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole and neutral	EA	20.00		-

361	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Triple pole	EA	20.00		-
362	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 25 amps	EA	60.00		-
363	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	EA	30.00		-
364	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	EA	30.00		-
365	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps MCB four pole.	EA	25.00		-
366	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 25 amps	EA	25.00		-
367	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	EA	25.00		-
368	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	EA	5.00		-
369	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32amps 240 volts "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	EA	30.00		-
370	Supplying and fixing TP sheet steel enclosure on surface/ recessed along with 16/25/32amps 415 volts "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	EA	15.00		-
371	Supply & fixing of single phase 3-pin 32 Amp rating floor mounted industrial sockets weather proof IP 67 of Legrand/Neptune /Balls make complete pair with male & female type plug & socket arrangement.	EA	50.00		-
372	Supply & fixing of 63 Amp 3 phase 5 pin IP 65 industrial socket with top & complete with encloser & 3 phase MCB of 63 amp rating of HAGER / Legrand /L&T /Merlingerin make	ST	10.00		-
373	Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 30 A, "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	EA	20.00		-
374	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 4 way (4 + 12), Double door	EA	10.00		-
375	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 6 way (4 + 16), Double door	EA	10.00		-
376	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 8 way (4 + 24), Double door	EA	10.00		-
377	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, EArth bar, din bar for mounting MCB's (but without MCB's and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 12 way (4 + 36), Double door	EA	10.00		-
378	Providing and fixing following rating and braking capacity and 3 pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.125 Amp, 16 KA,TPMCCB	EA	10.00		-
379	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 12 way, Double door	ST	10.00		-
380	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 8 way, Double door	EA	10.00		-

381	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 16 way, Double door	EA	10.00			-
382	VTPN (ACDB): 6W TPN Supply, installation, testing and commissioning of following double door type distribution boards fabricated out of 16 SWG, CRCA sheet steel recessed in wall or surface mounted. 6-way TPN AC DB double door type (IP 43),consisting of one no100 Amp TP MCCB (10 KA) as in commer & 18 no 25/32 Amp S.P MCB as out going.	ST	10.00			-
383	VTPN DB (ACDB): 8W TPN Supply, installation, testing and commissioning of following double door type distribution boards fabricated out of 16 SWG, CRCA sheet steel recessed in wall or surface mounted. 8 -way TPN AC DB double door type (IP 43),consisting of one no100 Amp TP MCCB (10 KA) as in commer & 18 no 25/32 Amp S.P MCB as out going.	ST	10.00			-
384	Supply, laying & fixing of following sizes of Cu/GI strip/wire clamped to walls, cable trays etc for equipment/ System earthing complete as required including inter connection between length at joints, all fixing accessories saddles, clamps etc and other fixing hardware material as required for proper installation.8 SWG G.I Wire	M	100.00			-
385	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	EA	10.00			-
386	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	ST	10.00			-
387	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	ST	6.00			-
388	Supply, Installation, Testing & Commissioning of Advance Miantenance Free Chemical Earthing System of 10 feet length, 63mm dia, 2 mm thick electrolytic grade copper tube duly filled with conducting chemicals with the permanant sealings at the both the ends with the lead terminal at the top along with 50 Kgs a chemical GEM to retain the life span of 15 years with the heavy duty poly plastic earth pit cover. The chemicearthing system should be fabricated with earthing electrode and back fill compound which has the capability to enhance the ground connectivity. The connectivity should be extended to the place of equipment thourgh the copper strip which will be burried under ground.The specification of the electrode are as under a) Electrode should be 3 meter long 63mm thick in diameter =0 1 no B) Should be made of galvinsed steel (90-100) microns with pipe in pipe technology C) Annular space filled with high conductive and anti corrosive withhigh conductive and anti corrosive crystalline conductive mixture D) Should be strong and corrosion resitant E) Manufactured in accordance with PS 3043-1987 (Code of pratice of earthing) F) Electrode should be dug in ground Sralong with soil friendly, moisture retaining back fill compound which has capability to enhance groundconductivity (min 125Kg of back fill compound for earthing system) G) The result should be below 1 Ohm in any case .	ST	2.00			-
389	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	M	100.00			-
390	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	M	200.00			-
391	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 2.5 Sq mm Copper armoured XLPE cable	M	20.00			-
392	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 4 Sq mm Copper armoured XLPE cable	M	20.00			-
393	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 6 Sq mm Copper armoured XLPE cable	M	20.00			-
394	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC <u>insulated Aluminium conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. b) 3 core 6 Sq. mm Aluminium	M	250.00			-
395	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. a) 2 core 10 Sq. mm Aluminium	M	250.00			-
396	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 3 C x 10 Sq.mm	M	250.00			-
397	4CX10sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. b ) 4 core 10 Sq mm Aluminium	M	250.00			-
398	4CX16 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 16 Sq mm Aluminium	M	250.00			-
399	4CX25 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 25 Sq mm Aluminium	M	100.00			-

400	4CX35 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 35 Sq mm Aluminium	M	100.00			-
401	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 50 Sq.mm	M	50.00			-
402	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4C x 95 Sq.mm	M	25.00			-
403	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 185 Sq.mm	M	25.00			-
404	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 300 Sq.mm	M	25.00			-
405	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Upto 25 sq. mm	M	500.00			-
406	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Above 25 sq. to 120 sq. mm	M	50.00			-
407	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Above 120 sq. mm to 400 sq. mm	M	50.00			-
408	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes <b>on surface</b> as required:- Upto 25 sq. mm	M	50.00			-
409	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes on surface as required:- Above 25 sq. to 120 sq. mm	M	50.00			-
410	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes on surface as required:- Above 120 sq. mm to 400 sq. mm	M	50.00			-
411	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following sizes in the existing RCC/ HUME/ STONEWARE/ METAL pipe as required:- Upto 25 sq. mm	M	50.00			-
412	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following sizes in the existing RCC/ HUME/ STONEWARE/ METAL pipe as required:- Above 25 sq. mm to 400 sq. mm	M	50.00			-
413	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 3 C x 10 Sq.mm	ST	30.00			-
414	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 10 Sq.mm	ST	30.00			-
415	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 16 Sq.mm	ST	30.00			-
416	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. End termination 4 X 25 sq. mm (28mm)	ST	5.00			-
417	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. End termination 4 X 35 sq. mm (32mm)	ST	5.00			-
418	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 50 Sq.mm	ST	15.00			-
419	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 95 Sq.mm	ST	10.00			-
420	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 185 Sq.mm	ST	5.00			-
421	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4C x 300 Sq.mm	ST	5.00			-
422	Supply and fixing of 36 watt T8 or 28 watt T5 lamps in existing light fixtures.	EA	5.00			-
423	Supplying and Fixing of Flood light of philips Out door type BRP 022 LED - 21 watt LED street light fittings of Philips including GI pipe for mounting the light and accessories like clamps, bolt, nut etc with testing and commissioning in all respect.	EA	2.00			-
424	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. b) 1x 18 Watt LED wall light model type 31081 4 feet long Fixture of philips surface mounted type .	EA	100.00			-
425	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. b) 1x 9 Watt LED wall light model type 31081 2feet long Fixture of philips surface mounted type .	EA	25.00			-

426	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. <b>surface mounted. LED philips lighting Sereno LED /SP 824 P LED 29S-5000 GR OD,</b>	EA	10.00		-
427	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required.e) Supply, Installation of philips bulk head light fittings of CAT no FXC 101 including 11 watt CFL lamp	EA	5.00		-
428	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Recessed mounted fitting with <b>1 x 12 Watt, LED Light</b> (Make:-Philips CAT No. DN192B-LED9S-6500 PSU WH) or equivalent.	EA	100.00		-
429	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:-Recessed mounted fitting with <b>1 x 12 Watt, LED Light</b> (Make:-Philips CAT No. DN193B-LED12S-6500 PSU WH) or equivalent.	EA	50.00		-
430	Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of Recessed mounted , minimum 600 lumens LED light fitting complete as required., (Philips : Green LED Ultima Circular DN091B LED6S-6500 PSU WH orEquivalent),,	EA	20.00		-
431	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:-Surface mounted circular fitting with <b>1 x 13 Watt LED Light</b> (Make:-Philips CAT No. BBS313 1xDLED-5000 WH) or equivalent.	EA	1.00		-
432	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Recessed mounted fitting with 4 x 14 Watt, LED Light, direct-indirect lighting luminaire with special seamlessly integrated frame and full Opal Acrylic Diffuser (OAD) (Make:-Philips CAT No. 2' x 2' LED-RC380B LED-25-6500 PSE OD WH (40W)) or equivalent	EA	100.00		-
433	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Surface mounted fitting with <b>1 x 12 Watt, LED surface Light Square (CW)</b> (Make:-Philips Square panel LED Light)	EA	10.00		-
434	Supplying and Fixing of Flood light of philips Out door type BVP161 30 watt LED street light fittings of Philips including fixing clamp ,accessories like clamps, bolt, nut etc with testing and commissioning in all respect.	EA	10.00		-
435	Retrofitting of existing recessed type light fixtures T8/T5 2X36 /40 watt by LED lamps of 2 X 18 watts of philips complete with retrofit arrangement.	EA	20.00		-
436	Retrofitting of existing recessed type light fixtures T8/T5 1 X36 /40 watt by LED lamps of 1 X 18 watts of philips complete with retrofit arrangement.	EA	10.00		-
437	Supply & fixing of Philips / Wipro / 3M , warm white colour LED light strip 5 watt per meter ,complete with power supply adpoter etc.	M	10.00		-
438	Suspended type 8 ft, minimum 5400 lumen Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of suspended type 8 ft, minimum 5400 lumens LED light fitting with continuous interconnection feature, complete as required., (Regent Slash 28W or Equivalent),, Complet with suspention arrangement & clamps etc	EA	1.00		-
439	Recessed type 8 ft, minimum 5400 lumen Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of suspended type 8 ft, minimum 5400 lumens LED light fitting with continuous interconnection feature, complete as required., (Regent Slash 28W or Equivalent),, Complet with suspention arrangement & clamps etc	EA	1.00		-
440	Supplying and fixing of 250 mm dia exhaust fan with louvers and bird screen of PVC body in existing opening with 900 rpm (Approved make) of 250 mm dia .	EA	5.00		-
441	Supplying and fixing of exhaust fan with louvers and bird screen of PVC body in existing opening with 900 rpm (Approved make) b) 305 mm dia	EA	10.00		-
442	Supplying and fixing of 305 mm dia exhaust fan with louvers and bird screen of MS body in existing opening with 1400 rpm (Approved make) of 305 mm dia	EA	10.00		-
443	Heavy duty Exhaust fan 450 mm dia Supplying and fixing of size of exhaust fan with louvers and bird screen of Heavy duty of MS body in existing opening with 1400 rpm (Approved make) b) 450 mm dia(1400 rpm)	EA	5.00		-
444	Stainless Steel cover-Supplying and installation of following sizes 2.0 mm thick 4 way GI boxes with 2.0 mm thick Stainless Steel cover and fixing SS hardware in recess/ on surface including chasing the wall/floor complete as required. A) 200 x 200 x 50-75 mm	EA	25.00		-
445	Supply & fixing of 2 to 3 mm thick SS plates of size 300 X300 mm complete drilling the holes finishing & polishing the same	EA	5.00		-
446	Supply & laying of aluminium /GI floor race way of size 100X40 mm imbeded in floor including cutting of PCC & cover tge same with semi finish	M	10.00		-
447	Supply & laying of aluminium /GI floor race way of size 100X50 mm imbeded in floor including cutting of PCC & cover tge same with semi finish	M	10.00		-
448	Supplying and installing following size of perforated pre-painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required 150 mm width X 50 mm depth X 1.6 mm thickness.	M	10.00		-
449	Fabricating & installing perforated GI cable trays including horizontal and vertical bends, reducers, tees, cross members and other accessories as required including GI C Channe supports of 300 mm width x 50 mm depth x 2 mm thickness (/SLOTCO BEECO /RICOH Steel)	M	10.00		-

450	Fabricating & installing perforated GI cable trays including horizontal and vertical bends, reducers, tees, cross members and other accessories as required including GI C Channe supports of 450 mm width x 50 mm depth x 2 mm thickness (SLOTCO BEECO /RICH Steel)	M	10.00		-
451	Providing and fixing of Fan Hook in existing Slab including cutting cement concrete and making good the same.	EA	10.00		-
452	Installation,fixing,testing,comissioning & assembling the street light 70 watt/120 Watt/ 150 watt/250/400 watt Normal OTR LED fittings complete with inter connection of blasst ,starter /iginator and lamp etc (Fittings with parts are supplied by TPDDL at site).	EA	25.00		-
453	Supply & fixing of 1-1/2 inch dia GI pipe medium class 750 mm to 1000 mm long, light fittings mounting brackets with 02 no mounting clams complete with nut bolt &washer etc	EA	50.00		-
454	Providing & installation (laying) of PVC insulated un armoured cable of 1.5 Sq mm 2 core including termination connection etc	M	200.00		-
455	Supplying and fixing Testing & commissioning with cable connection / termination of 200 mm x 160 mm x 98 mm (inner size) Pole Box made of polysterene thermoplastic having shock proof, bweather proof, rust proof, water proof (conforming to IP-65) enclosure having suitable size knock outs for cable entry in surface/recess of wall or on existing pole with 2 nos. of G.I. Clamps including 6 /10A SPMCB & 3 nos. Connectors suitable for 6/16/25 sq.mm. XLPE insulated cable for looping in and outwith branch out suitable for 2.5 sq.mm. PVC insulated wire including interconnections etc. as required.	EA	10.00		-
456	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required. 5/6 amps switch	EA	10.00		-
457	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.2 way 5/6 amps switch.	EA	10.00		-
458	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.15/16 amp switch	EA	10.00		-
459	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required. 3 pin 5/6 amp Socket.	EA	10.00		-
460	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.6 pin 15/16 amp socket outlet	EA	10.00		-
461	Supply and laying of 25 mm Dia PVC flexible conduits complete with dressing and fixing etc,	M	50.00		-
462	PVC Insulated copper Arm. Cable 1.5 SQ.MM. 2 Core Providing & Installation of PVC insulated Copper armored cable 1.5 sq. mm 2 core including termination connections etc. as required.	M	1000.00		-
463	Manual Call Box Providing & Fixing of manual call box in suitable enclosure with arrangements to raise the alarm when the glass is manually broken, complete as required	EA	25.00		-
464	Electronic Fire Hooter Providing & Fixing electronic fire hooters of 120dB sound level, suitable for mounting, complete as required.	EA	25.00		-
465	Blinking Type Smoke Detector Providing & Fixing of Blinking type Smoke Detector (Dual chamber ionisation type with mounting base, complete as required.	EA	150.00		-
466	Blinking Type Photoelectric Smoke Detector Providing & Fixing of Blinking type photo Electric type Smoke Detector with mounting base etc. complete as required.	EA	2.00		-
467	Blinking Type Fixed Temperature Heat Det Providing & Fixing of Blinking type Rate of Rise cum Fixed Temperature Heat Detector with mounting base etc. complete as required.	EA	25.00		-
468	Supplying, installing, testing and commissioning 4 zone Main Control Panel with zone indication. The panel shall include solid state circuits, battery charger, batteries etc. and fire/fault/test positions selector switches, zone isolation facility etc. complete as required.	EA	10.00		-
469	Supplying, installing, testing and commissioning 2 zone Main Control Panel with zone indication. The panel shall include solid state circuits, battery charger, batteries etc. and fire/fault/test positions selector switches, zone isolation facility etc. complete as required.	EA	10.00		-
470	Fire Detection Panel 3-6 Zones Providing, Fixing and commissioning the new fire detection panel of similar specification complete in all respect for: 3 to 6 Zone Micro-processor based fire alarm panel with made of 16 SWG CRCA Sheet with hinged front cover and acrylic sheet in the front with locking arrangement and inbuilt battery Box, comprising of Audio/visual alarm Indication of fire & fault etc, with Control panel consisting 8 bit system CPU 11.0592 MHz WDT processor, 16 X 4 line LCD display, time and date on LCD, complete with 100 event data logger with date and time stamp, optional serial direct thermal dot line printer connectivity with 48mm print width, indications for fire, fault, mains power and battery. The panel shall also contain annunciation window type indicators for fire and fault. Panel should support a) RS 485 serial communication mode for active repeater b) TCP/IP converters for centralized monitoring of the panel from any remote PC c) ATX key board support for field programming d) PA system connectivity for announcement and alerting. The panel shall contain built-in battery charger and battery space for 2 X 12V, 7Ah maintenance free battery (Exide/ Panasonic) for 6 hrs back up in normal case and 30 min back up in case of alarm. (Approved Make: Honeywell/Agni Suraksha(Dataatakex) / Safeway /System Sensor)	EA	1.00		-
471	Please consider as following : Response indicator with twin transparent LED that shall glow red in case of fire.	EA	30.00		-
472	MS galvanized boxes - used as the base of the detector installed at the ceiling	EA	40.00		-
473	Supply & fixing of MINILEC make single phase suitable up to 32 Amp auto transfer switch complete with auto / adjustable timer for auto ON/OFF one by one each AC units as per timer setting , suitable for server rooms AC units	EA	5.00		-
	<b>Total Excl. GST</b>				-
	<b>GST @18%</b>				-
	<b>Total Incl. GST</b>				-

Work is to be carried out in the areas, locations covered under various Divisions, Sub - Divisions, Sections of the WESCO Utility Circle as mentioned in the attached Annexure II. Vendors need to visit these areas / locations to understand the scope of work and get acquainted with the areas , local conditions, availability of resources etc. where works are required to be executed.

The rates finalised for the Circle shall be applicable to all the works covered under Divisions, Sub - Divisions, Sections of the Circle.

**General Civil Works in various areas under Bolangir Circle of WESCO Utility**

Sr. No.	Brief Item description	Unit	Qty	Rate	Amount
1	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	500		-
2	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, dewatering and depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	500		-
3	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>1.51 to 3.0</b> mtrs	M3	400		-
4	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, dewatering and depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>1.51 to 3.0</b> mtrs	M3	400		-
5	Providing cartage service and transporting, excavated soil, debris, bricks, concrete, scrapwood including loading and unloading and disposing off to dumping sites approved by statutory bodies outside premises including submission of relevant documents, as applicable outside the station premises. (Note. Payable measurement shall be dismantelled qty. (Voids to be deducted as applicable whenever heap / truck mesurements are taken))	M3	400		-
6	Excavation in all types of <b>hard rock with mechanical equipment rock breaker</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	25		-
7	Providing close timber shoring consisting of 25 mm thk. walling and struts of size 100x100 mm or any other suitable alternative to sides of excavation / trenches / pits etc. wherever necessary and as directed for depth from 0 to 1.50 Mtrs	M2	200		-
8	Providing close timber shoring consisting of 25 mm thk. walling and struts of size 100x100 mm or any other suitable alternative to sides of excavation / trenches / pits etc. wherever necessary and as directed for depth from 1.51 to 3.00 Mtrs	M2	200		-
9	Backfilling trenches in 225 mm thick layers consolidated to 150mm.with murrum / excavated material (available at site upto 100 mtr.) including compaction of backfill by watering and tamping with approved hand or mechanical tampers.	M3	105		-
10	<b>Backfilling</b> trenches in 225 mm thick layers consolidated to 150mm <b>with murrum procured externally</b> including compaction of backfill by watering and tamping with approved hand or mechanical tampers. (mode of measurement will be Pre & Post work levels.Voids to be deducted at 20% if on truck measurement))	M3	35		-
11	Providing and laying 225 or 300 mm thick <b>dry rubble soling</b> with approved quality stones including filling gaps with small chips ramming with hand rammer etc. complete.	M3	400		-
12	Providing and laying 225 or 300 mm thick <b>dry rubble soling</b> with approved quality stones including filling gaps with small chips ramming with hand rammer etc. complete.(Rubble will be supplied by Tata's free of cost / <b>using available rubble at site</b> )	M3	35		-
13	Providing and spreading <b>metal No.3 or 4</b> in trenches or for pathways (including all materials) in layers for all thicknesses from 75 mm thick onwards and consolidating the same with hand rammer, etc. complete.	M3	28		-
14	Spreading and laying <b>metal No.3 or 4</b> in trenches or for pathways (including all materials) in layers for all thicknesses from 75 mm thick onwards and consolidating the same with hand rammer, etc. complete by <b>using metal available at site.</b>	M3	35		-
15	<b>Demolishing Brick Wall</b> (Including Plaster) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	35		-
16	<b>Demolishing Plain Cement Concrete (PCC)</b> (Including Plaster, flooring, mortar bedding) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	35		-
18	<b>Demolishing Reinforced Cement Concrete (RCC)</b> (Including Plaster, flooring, mortar bedding,Cutting Reinforcement) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	30		-
19	<b>Demolishing / removing Plaster of various thickness</b> and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M2	150		-
20	<b>Demolishing Asphalt Surface of various thickness</b> and transporting debris within companies premises or as directed including providing tools, tackles and pneumatic equipment as directed	M3	30		-

21	<b>Demolishing Rubble Soling / Pitching upto 300 mm thickness</b> and transporting debris within companies premises or as directed including providing tools, tackles and pneumatic equipment as directed	M3	7		-
22	<b>Dismantling</b> and neatly stacking <b>structural steel</b> work of roof trusses, purlins, beams, columns, chequered plate floorings, treads, risers, stringers, bracings, runners, fencing posts etc. at all heights including providing all accesories complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include returning the dismantled members to owner's stores at division etc. complete as directed.	MT	35		-
23	<b>Dismanting</b> and stacking including removal of wooden or steel frame work,angle supports etc. complete as directed for <b>Doors / Windows / Ventilators.</b>	M2	35		-
24	<b>Dismantling</b> and removal of <b>chainlink fencing</b> including removal of angle posts & barbed wire and returning the dismantled members to owner's stores at division etc. complete as directed. including scaffolding as per safety standards etc. complete as directed.(Rate shall inclusive of providing necessary tools tackles , cutting set, welding set wherever required.)	M2	140		-
25	<b>Dismantling</b> and stacking <b>AC or CGI sheets</b> on roofs or partitions excluding removal of wooden or steel frame work, angle supports etc. complete. (Rate including returning AC sheets in usable condition to store) for AC or CGI Sheet in usable condition	M2	70		-
26	<b>Providing</b> all the materials including screws, bolts and fixing corrugated <b>A.C. Sheet, GI Sheet, Galvalume sheet</b> on partition, roof or any other place including cutting, screwing etc. complete at all elevations (Only Sheets shall be supplied by TATA's free of cost)	M2	300		-
27	Carefully breaking and removing old tiles in floor / dado / skirting including mortar bedding / plastering and carting away debris and stacking tiles pieces within Owner's premises as directed by Engineer. (Mosaic / Plain Cement Tiles, Glazed Tiles & Nonskid ceramic tiles etc.)	M2	100		-
28	Dismanting and stacking including removal of wooden or steel frame work,angle supports etc. complete as directed for <b>Doors / Windows / Ventilators.</b>	M2	500		-
29	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Raft / footings</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	50		-
30	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Pedestals, columns, walls</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	20		-
31	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Beams / slabs</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	10		-
32	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Raft / footings</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	50		-
33	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Pedestals, columns, walls</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	20		-
34	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Beams / slabs</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER .	M3	10		-

35	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Pardis / Fins</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER.	M3	3		-
36	Providing all the materials laying Indian Patent Stone flooring in M15 grade concrete, including finishing the surface & curing etc. complete as directed ... 37 mm thk with Aluminium strips in panels of 2 x 2 M (Cement Consumption 0.36 Bag/M2)	M2	35		-
37	Providing all the materials laying Indian Patent Stone flooring in M15 grade concrete, including finishing the surface & curing etc. complete as directed ... 50 mm thk with Aluminium strips in panels of 2 x 2 M(Cement Consumption 0.48 Bag/M2)	M2	35		-
38	Supplying, Providing and laying in position <b>plain cement concrete of grade M10 machine mixed, vibrated and placed to correct line and level in levelling course/fill under or around foundations pits, slabs on grade, sumps, soak pits</b> , etc. at any depth with 30 mm down graded coarse aggregates including curing, compacting, de-watering wherever necessary, providing marine plywood shuttering form work wherever required etc. complete. (Min cement content 210Kg/m3)	M3	20		-
39	Supplying, Providing and laying in position <b>plain cement concrete of grade M15 machine mixed, vibrated and placed to correct line and level in levelling course/fill under or around foundations pits, slabs on grade, sumps, soak pits</b> , etc. at any depth with 30 mm down graded coarse aggregates including curing, compacting, de-watering wherever necessary, providing marine plywood shuttering form work wherever required etc. complete. (Min cement content 300 Kg/m3)	M3	30		-
40	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 12.5 mm nominal size).	M3	8		-
41	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	M2	200		-
42	Providing and fixing precast reinforced concrete cable trench covers, drain covers, fencing post, etc of class M25 concrete w/c 0.5 (max) leaving cutouts/ pockets, placing of inserts/ embedments, etc., complete all as per drawing including shuttering, vibrating, machine mixing, providing lifting arrangements, placing inserts curing handling, transporting, etc. complete but excluding the cost of providing reinforcement, inserts / embedments,with 30 mm downgraded aggregates. (Cement consumption 7.9 Bag/M3)	M3	4		-
43	Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding <b>reinforcement steel</b> for all types of RCC / Precast work irrespective of locations & levels all as per drawings including steel scaffolding, handling and transporting from site stores, complete as directed by using High yield strength deformed bars conforming to IS 1786 - <b>HYSD Bars</b>	TO	7		-
44	Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding reinforcement steel for all types of RCC work irrespective of locations & levels all as per drawings including handling and transporting from site stores complete as directed y using Mild Steel bars conforming to IS 432 - M S Bars / rods	MT	2		-
45	Providing all material and constructing brick masonry 230mm. thick and above in cement mortar (1:5) using approved quality, class 50 conforming to IS:3102 table moulded bricks, including leaving inserts / pockets, steel scaffolding, curing, raking joints, etc.	M3	300		-
46	Providing all material and constructing brick masonry 115 mm. thick and in cement mortar (1:4) using approved quality, class 50 conforming to IS:3102 table moulded bricks, including leaving inserts / pockets, steel scaffolding, curing, raking joints, etc. Any reinforcement required to be placed shall be paid separately in reinforcement item of this BOQ.	M2	200		-
47	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand)	M3	250.00		-
48	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	M3	50.00		-
49	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	M2	200.00		-
50	Providing all materials and carrying out <b>sand faced plaster 25 mm thick in two layers</b> (first layer of 16 to 18 mm and second layer of 6 to 8 mm thickness ) and plastering external surfaces of concrete and brick work such as walls, columns, beams etc. with 1:4 cement mortar, including providing & erecting steel scaffolding, hacking of concrete surfaces, curing including bands, drip moulds, grooves, etc. complete with 2% Accoproof or approved waterproofing compound	M2	500		-
51	Providing all materials and carrying out <b>sand faced plaster 18 mm thick in sigle layer</b> and plastering external surfaces of concrete and brick work such as walls, columns, beams etc. with 1:4 cement mortar, including providing & erecting steel scaffolding, hacking of concrete surfaces, curing including bands, drip moulds, grooves, etc. complete with 2% Accoproof or approved waterproofing compound	M2			-
52	Providing and <b>plastering internal surfaces</b> of concrete and brick work such as walls, ceilings, columns, beams, etc. with cement mortar 1:4 mix <b>finish smooth with 1:1 proportion cement &amp; slaked lime neeru / instant neeru</b> , including providing and erecting steel scaffolding, hacking concrete surface, providing bands, grooves drip moulds, curing, etc - <b>12 mm thk</b>	M2	105		-

53	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface to receive exterior quality paint , Applying a coat of approved Primer and Two Coats of Paint. Including necessary scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Exterior quality Plastic Emulsion paint</b>	M2	150		-
54	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface plain by applying putty, Applying a coat of approved Primer and Two Coats of Paint. Including necessary steel scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Synthetic Enamel Paint</b>	M2	150		-
55	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface plain by applying putty, Applying a coat of approved Primer and Two Coats of Paint. Including necessary steel scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Internal quality Plastic Emulsion paint</b>	M2	140		-
56	Providing all materials, tools tackles and labour, preparing the surface by scrapping / wire brushing to remove loose scales, Applying 3 coats of <b>White Wash</b> of approved Shade & Manufacturer, including necessary steel scaffolding / staging etc. complete as directed.	M2	140		-
57	Providing all materials roughening the surface and carrying out <b>waterproofing treatment to roof with brickbat coba</b> with well burnt half to three quarter bricks laid on edge diagonally, grouted with 1:3 CM with water proofing compound 5% by weight of cement of average thickness 125 mm including 50 mm thk IPS M15 grade including surfaces up to 300 mm above the finished surface on side walls( Measurements shall be based on net plan area only). Work to be guarantted for minimum 7 years	M2	70		-
58	Providing and constructing <b>112mm thick brick masonry Partition Walls in CM 1:4</b> including, scaffolding, curing, racking of joints for plastering or pointing, including transomes and mullions complete at all heights as per specification and as directed. (Reinforcement will be measured and paid for separately.)	M2	7		-
59	Providing and constructing <b>uncoursed rubble masonry in CM 1:5</b> including leaving inserts / pockets, steel scaffolding, curing, raking out joints for plastering / pointing complete for 0 to 4.00 Mtrs. High (Cement consumption 2.26 bag/M3)	M3	35		-
60	Providing all your tools and tackles and rendering services of Electrician / Carpenter / Plumber along with helper and consumables for minor repairs i/c providing washers, thread, m seal, screws, nails, fevicol, fuse wire, insulation tape and T & P as per requirement at site complete as per requirement of Owner.(The unit of per day is meant for 8 hours and it shall be paid judiciously on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	Day	90.00		-
61	Providing and fixing GI chicken wire mesh on concrete and masonry joints using nails, T&P etc. as per direction of the EIC complete.	M2	50.00		-
62	Making round opening in wall for exhaust fan upto 450 mm including making good the wall, jamps with cement mortar 1:4 (1 cement : 4 coarse sand) and finishing complete.	EA	10.00		-
63	Providing all the materials and carrying out <b>raised or flush cement pointing</b> in 1:3 cement mortar including providing and erecting steel scaffolding, curing, etc. complete <b>to rubble masonry / rubble pitching</b>	M2	35		-
64	Providing all the materials and equipments, fixing <b>marble mosaic tiles</b> of approved make such as BHARAT / NITCO / SIMPLEX or equivalent in floors and including cleaning the base laying 25 mm thick bedding mortar of one part of cement two parts of lime and six parts of sand, floating tiles in cement slurry at 5 Kg / M2, polishing with machine including washing with oxalic acid as directed, Neutral Shade tiles floated in Grey Cement.	M2	30		-
65	Providing and fixing <b>25mm thick Kotah Stone flooring</b> (machine cut and machine polished) with necessary cement mortar bedding, floating with matching colour cement, curing, machine polishing, cleaning etc. complete.	M2	25		-
66	Providing and fixing <b>35mm thick machine cut machine polished black kaddappa stone</b> of any sizes for counter / cooking platform with necessary cement mortar bedding and floating with matching colour cement, curing, polishing, cleaning etc or cutting grooves in walls & redoing in CM (1:3) complete.	M2	20		-
67	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels Granite of any colour and shade. Area of slab over 0.50 sqm.	M2	20		-
68	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels. a) Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble. Area of slab over 0.50 sqm.	M2	20		-
69	Providing half round edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Marble work	M	10		-
70	Providing half round edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work	M	10		-

71	Providing and fixing first quality <b>non-skid ceramic tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:5 bedding of average thickness 40mm , floated with matching cement etc. complete of size (300mm X 300mm). Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	30		-
72	Providing and fixing first quality ceramic <b>glazed tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:5 bedding of average thickness 40mm , floated with matching cement etc. complete of all sizes. Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	50		-
73	Providing and fixing first quality <b>Coloured glazed tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:4 bedding upto 40mm , floated with matching cement etc. complete of all sizes upto 300 x 600. Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	20		-
74	Providing and fixing first quality ceramic <b>vitrified tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor laid to line and level on cement mortar 1:4 bedding upto 75mm , floated with matching cement etc. complete of size 600 x 600.	M2	50		-
75	Rubbing and grinding of existing terrazo/mosaic flooring i/c polishing to the desired finish complete at all floor levels	M2	500.00		-
76	<b>Fabricating and erecting structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts, and washers and applying one coat of Shalimar or any other approved make red oxide (primer) paint to all the exposed surfaces of steel. <b>Only structural Steel to be provided by Owner at the nearest store</b>	TO	80		-
77	<b>Providing steel and supplying all material, fabricating and erecting structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as per the approved drawing or as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts, and washers and applying one coat of Shalimar or any other approved make red oxide (primer) paint to all the exposed surfaces of steel. Structural steel section shall be of primary manufacturer and confirm to IS2062 requirements	TO	80		-
78	<b>Providing steel and supplying all material, fabricating and erecting galvanized structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as per the approved drawing or as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of GI bolts, and nuts, and washers. Structural steel section shall be of primary manufacturer and confirm to IS2062 requirements & GI coating shall confirm to IS2629 (1985) & 4759 (1996) .#contractor shall submit the test certificate of GI coating thickness. Thickness should be 80 Microns HOT Dip.	TO	10		-
79	Providing steel and Supplying all material for Fabricating and erecting all types of steel work including welding, gas cutting, grinding, drilling of holes, or other lifting arrangements etc. Contractor shall use his own welding set, gas cutting set, gas, approved quality of welding electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts , and washers and applying coats of Zinc primer to all the exposed surfaces of steel. <b>For MS Chequered plates.</b>	MT	15		-
80	Providing, fabricating and erecting <b>6 / 8 / 10 mm thick aluminum Chequered plate</b> for platform, flooring, treads, risers, stringers, bracings, runners etc. at all heights including straightening, cutting, grinding, drilling of holes or other lifting arrangements, etc. complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of bolts, and nuts' washers and other fixtures etc. complete.	MT	5		-

81	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete. 75 mm overall thickness partition with 12.5 mm thick double skin fire rated Glass Reinforced Gypsum (GRG) board conforming to IS: 2095: (part 3) : 1996 (Board with BIS certification marks)	M2	20.00		-
82	Providing all your equipment, tools and tackles and rendering services including consumables for welding of various steel works viz doors, windows, gates, partitions,grills etc., including hiring charges of welding machine with welder & helper, carriage etc complete in all respect. (The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	day	30		-
83	Providing and fixing powder coated aluminum Partition part panelled and partly glass 8mm thick Main frame shall be made out of Hollow extruded sections of size 100mm x 75mm x 14 gauge.	M2	35		-
84	Providing and fixing powder coated aluminum doors part panelled and part louvered or glass 8mm thick ( for all sizes ) Main frame shall be made out of Hollow extruded sections of size 100mm x 75mm x 14 gauge. The louvers shall be made of 5.5mm thick wire glass slided inside suitable aluminum 14 gauges channels fixed to main frame by 2 nos. 4 mm aluminum rivets fixed at 45 deg etc. complete.	M2	25		-
85	Making pockets in Brick Masonry / PCC / RCC at all levels on the vertical and horizontal faces with necessary staging as required to fix anchor bolts / inserts (Supplied by Tata free of cost) and Grouting the pockets with 1:1 cement mortar after placing the bolts / inserts and finishing the surface either smooth or sand faced as required upto 200 mm square & depth upto 300mm	NO	20		-
86	Providing and fixing CI rain water pipes conforming to ISI with bends clamps etc., as directed.				-
87	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 100mm Dia.	M	35		-
88	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 150mm Dia.	M	35		-
89	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 200mm Dia.	M	35		-
90	Providing all the materials & fixing corrugated GI Sheet 16 guage including GI screws, GI bolts, bitumen washers on partition, roof or any other place including cutting, screwing etc. complete at all level including scaffolding.	M2	250		-
91	Providing , stretching and fixing chain link fencing 2" square and of gauge 10 (bare metal thickness) on angle posts with heavy duty GI split pins etc. in position complete as directed at all Heights including steel scaffolding.	M2	3000		-
92	Stretching and fixing chain link fencing 2" square and of gauge 10 (bare metal thickness) on angle posts with heavy duty GI split pins etc. in position complete as directed at all Heights including steel scaffolding. (Only Chain link shall be supplied by the Owner).	M2	200		-
93	Providing and fixing reinforced barbed wire tape (RBT) (2.6mm) thick single wire along the boudary wall / fencing on angle iron post with all necessary fitting such as welding of nuts, bolts, clips, split pins, TSP & such etc.complete	M	2000		-
94	Providing and fixing G I barbed wire of 10 guage along the boudary wall / fencing on angle iron post with all necessary fitting such as welding of nuts, bolts, clips, split pins, manpower etc.complete	M	1000		-
95	Providing and fixing concertina coil of 610 mm dia., 80 Nos. of circles, 200 Nos. of clips, hot dip galvanized. The wire shall be of 12 SWG tensile wire, covering 10 RM with one coil, each RM will have 8 Nos. of circles, including labour, fixing in position on existing V shaped angles including 2 nos. of guard wires and painting with 2 coats of Bus green paint complete at all heights including scaffolding.	M	500		-
96	Providing & fixing Broken glass pieces over coping on compound walls including providing ladders, scaffolding etc. complete as directed Ave. width 300 MM	M2	500		-
97	Hiring JCB with operator & helper including fuel and carrying out the work as directed by Owner's site manager.	shift	30		-
98	Hiring Poclain with operator & helper including fuel and carrying out the work as directed by Owner's site manager.	Shift	10		-
99	Providing ,Cutting and fixing HDPE pipe inserts 140 mm dia	M	35		-
100	Providing ,Cutting and fixing HDPE pipe inserts 200 mm dia	M	35		-

101	Supplying, fabricating and erecting Tubular Hand railing of 32 mm dia. NB medium class, SS pipes 304 mat finish /brush steel finish consisting of one SS rail and connecting with wall with all necessary SS bends, SS tee joints, SS fixtures, SS fittings, anchor bolts 6 mm dia and embedded in wall, etc. The assembly should be sturdy and with smooth surfaces at joints/ junctions. All SS sections, pipes etc. to be supported with documents for the quality and only SS sections and accessories shall be paid under this item	MT	1		-
102	S S Railing Supplying, fabricating and erecting Tubular Hand railing of 32 mm dia. NB medium class, SS pipes 304 mat finish/brush steel finish consisting of double ss rail with top ss rail 1 Mtr above floor level, middle rail at center and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary ss bends, ss tee joints, ss fixtures, ss fittings, anchor bolts including 6mm thick and embedded in ground, 75mm high toe guard at bottom etc.	M	100		-
103	Supplying, fabricating and erecting C class GI Tubular Hand railing of 32 mm dia. NB light class, consisting of double GI rail with top GI rail 1 Mtr above floor level and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary ss bends, GI tee joints, GI fixtures, GI fittings, anchor bolts including 6mm thick and embedded in ground, 75mm high toe guard at bottom etc. including connecting one coat of primer and two finish coats of synthetic enamel as directed. Note: Material to be provided by the contractor."	M	200		-
104	Supplying, fabricating & erecting Tubular Handrailing of 32 mm dia. N B, medium class, M S Pipes conforming to IS - 1239 of flush weld constructions & consisting of double rail with top rail 1 Mtr above floor level , middle rail at center and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary bends, tee joints, fixtures fittings, 75mm high toe guard 6mm thick at bottom, anchor bolts etc. including 1 shop coat of Shalimar or approved make red oxide primer paint conforming to IS 2074 and second coat of primer after completion of erection followed by two coats of finishing paints of approved make, colours and confirming to IS 2239 etc. complete as directed.	m	100		-
105	Providing and fixing powder coated MS wire mesh( 22 gauge) with aluminum frame etc. complete	M2	18		-
106	Providing and fixing powder coated SS wire mesh with aluminum frame etc. complete	M2	18		-
107	Providing and fixing powder coated GI mesh( 22 gauge) with aluminum frame etc. complete	M2	18		-
108	Providing & fixing Aluminium louvered POWDER COATED windows(fixed) conforming IS:1868. Main frame shall be made out of Hollow extruded sections of size 100 mm x 75 mm x 14 guage. The louvers shall be made of 5.5 mm thick wired glass slid inside suitable aluminium 14 guage channels fixed to main frame by 2 nos. 4 mm aluminium rivets fixed at 45 Deg.etc. complete.	M2	18		-
109	Providing, Fabricating and erecting MS gates consisting of MS angles framework (internal & external) using ISA 65x65x6 or 75x75x6 with 6mm to 8mm thk. MS joining plates, including chain-link stretched (8 gauge) tack welded over the framework with necessary hinges, locking arrangement including applying synthetic enamel paint of approved make over one coat of primer. Contractor shall use his own welding set, gas cutting set, gas, electrodes and other accessories required to complete the entire job. Rate is inclusive of all materials to be procured by the contractor.	M2	30		-
110	Providing, Fabricating and erecting MS gates consisting of MS hollow rectangular or square box sections with 6mm to 8mm thk. MS joining plates, including welding of sections as per design approved by the Owner. Fabricating the framework with necessary hinges, locking arrangement including applying synthetic enamel paint of approved make over one coat of primer. Contractor shall use his own welding set, gas cutting set, gas, electrodes and other accessories, steel scaffolding required to complete the entire job. All hollow box steel section shall be of primary manufacturer and confirm to IS 4923 requirements	MT	2		-
111	Steel work in built up tubular trusses including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete. Hot finished welded type tubes.	KG	1000		-
112	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 120 mm	EA	100		-
113	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 160 mm	EA	100		-
114	Dismantling / cutting and stacking Rolling Shutters with / without Wicket Gates including removal of angle supports etc, as directed.	M2	20		-
115	Supplying and fixing mechanical gear type rolling shutters, manually operated by means of winding handle and the shutter made out of 18 guage x 3" (1.10 mm to 1.25 mm) mild steel laths of convex corrugation, complete with build up 4" x 1" side guides, built up bottom rails with angle iron at bottom and flat iron at top, heavy brackets, extra strong door, suspension shaft made out of new pipes leaded with high tension steel springs of best Indian spring steel wire, locking arrangements handles, painted with one coat of primer paint complete in best workmanship with top cover 3 Nos. bearing and including loading, unloading and transportation at our site.	M2	100		-
116	Supplying and fixinghand operated type rolling shutters, manually operated by means of winding handle and the shutter made out of 18 guage x 3" (1.10 mm to 1.25 mm) mild steel laths of convex corrugation, complete with build up 4" x 1" side guides, built up bottom rails with angle iron at bottom and flat iron at top, heavy brackets, extra strong door, suspension shaft made out of new pipes leaded with high tension steel springs of best Indian spring steel wire, locking arrangements handles, painted with one coat of primer paint complete in best workmanship with top cover 3 Nos. bearing and including loading, unloading and transportation at our site.	M2	100		-
117	Providing all the materials and fixing Aluminum coated Name board of size 2.5mx1.2m (approx.) with stainless steel letters of 10" x 3" size with company's logo.	NO	6		-

118	Supplying & fixing in position anchor bolts with washers & nuts of required shape & size 6mm to 30mm dia. With necessary thread length including fixing templates etc. (Templates will not be paid for).	kg	200		-
119	Supplying and placing in position Mechanical Anchor fasteners 16 mm dia, 140 mm long including drilling the holes .(HST,HILTI make).	NO	140		-
120	Supplying and placing in position Mechanical Anchor fasteners 12mm dia. 140mm including drilling the holes .(HST,HILTI make).	NO	70		-
121	Providing and fixing single or double shuttered fully panelled POWDER COATED doors conforming to IS:1868. Main frame shall be made out of aluminum tubes of size 100mm x 45mm x 14 gauge. The shutters shall consist of 45mm x 45mm x 14 gauge top rail and styles, 95mm x 45mm x 14 gauge bottom rail and panelled with Marine plywood sandwiched between 18 gauge Aluminum sheet on both sides including necessary locking arrangement, handles on one or both the shutters, weather strip, floor springs for one or both shutters, tower bolts for one shutter etc. with pivots for each shutter including fixing necessary "PUSH PULL" signs, with rubber woolen felt sealing etc. complete. Aluminium sections to be of Jindal / Indal make	M2	35		-
122	Providing and fixing fully glazed sliding POWDER COATED aluminum windows. Outer frame shall be of size 100 mm x 45 mm x (14 gauge) anodized section of min. weight 6 Kg / 12' length. The 3 track Box Section (20 mm Series) Indal / Jindal shall consist of a) Bottom rail size 90 mm x 45 mm (14 gauge) of min. weight 5.5 Kg / 12' length. b) Sides and top rail 90 mm x 32 mm (15 gauge) of min. weight 3 Kg / 12' length. Glass shall be 6mm thick. rubber woolen felt sealing etc. complete.	M2	35		-
123	Providing and fixing CP jet spray size 12mm dia. of approved make with ISI mark	NO	20		-
124	Providing and fixing Basin mirror of size 600mmx600mm of approved make and colour including all material, tools, tackles complete	NO	20		-
125	Providing and fixing 100 x 80mm CI deep seal Nahani Trap of insect proof type with CP heavy grating and frame	EA	15		-
126	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 12mm Dia.	M	70		-
127	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 19mm Dia.	M	70		-
128	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 25mm Dia.	M	70		-
129	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 38mm Dia.	M	70		-
130	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 50mm Dia.	M	70		-
131	Providing and fixing 100 x 80mm PVC deep seal Nahani Trap of insect proof type with PVC heavy grating and frame as directed	No	7		-
132	Providing and fixing water closet squatting pan (Indian type W.C. pan ) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required : White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests (HINDUSTAN/Parryware MAKE)	EA	7		-
133	Providing and fixing white vitreous china pedestal type European water closet (Hindware make:Constellation set white) with seat & lid,10 litres flushing cistern & manually controlled device conforming to the IS-7231 with all fittings & fixtures complete including cutting and making good the walls and floors wherever required.WC pan with ISI marked white sloid plastic seat & lid heavy duty (HINDUSTAN/Parryware MAKE)	EA	50		-
134	Providing lip type urinal and flushing valve and bottle trap, lead and GI pipe connections overflow outlet pipes with mosquito proof cover including providing all the materials. etc. complete. (HINDUSTAN/Parryware MAKE)	EA	70		-
135	Providing and fixing stone ware gully traps of 9"x9" size as directed.	EA	70		-
136	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 12mm Dia.	EA	70		-
137	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 19mm Dia.	EA	70		-
138	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 25mm Dia.	EA	70		-
139	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 50mm Dia.	EA	70		-
140	Providing & Laying salt glazed stoneware pipes including providing all the materials and cement jointing but excluding excavation and backfilling including 50mm thk.M100 bedding below joints for 150mm Dia.	Rm	70		-
141	Removing, providing & replacing the broken manhole covers heavy duty CI, ISI marked with frame including finishing the top masonry with cement mortar as directed 225mm X 300mm Manhole covers should be of munal corporation approved.	EA	70		-
142	Removing, providing & replacing the broken manhole covers heavy duty CI, ISI marked with frame including finishing the top masonry with cement mortar as directed 900mm X 600mm - Manhole covers should be of munal corporation approved	NO	70		-
143	Removing , providing & fixing white glazed wash basin flatback confirming to IS 2556 (Part IV) of approved make including providing wash basin, C.I brackets, fixed to the wall with rawl plug bolts & screws and painted in two coats of white zinc paint over a coat of red oxide primer,with 15mm C.P. pillar tap as per IS 1795 (1 No.) of approved make, plug & C.P chain, 50mm dia. mosquito proof gratings, 32mm dia. C.P. waste pipe, brass stop cock as per IS 781 of bottle trap with C.P pipe pieces upto wall or floor level plus 40mm lead, waste pipe embedded floor from 32mm CP waste extension pipe to the CI waste shaft on the outside wall, complete with brass union and plumbers wiped soldered joints as directed with necessary cleaning eyes including cutting holes and chasses in the wall and making good the same in CM (1:4) etc. complete as directed. (Hindustan/ Parryware make .) Size 580mm X 450mm	EA	70		-

144	Providing and fixing 31 mm dia heavy duty CP Bottle trap matching with the existing if any	EA	70		-
145	Providing and fixing heavy dutyC P Flush valve for flat back Urinals complete matching with existing if any.	EA	70		-
146	Providing and fixing ceramic white sink including all connections, brackets,wast cupling, 32mm PVC pipe complete as directed. (Hindustan or Cera) Size 0.45m X 0.6m	EA	70		-
147	Supplying and fixing Stainless steel sink made out of best quality Stainless steel sheet of 16 guage conforming to IS 5522 having 1 1/4 " hole for drain pipe at centre of bottom plate with Stainless steel basket stainer 1 1/4 ", brass waist coupling , 1 1/2 " moulding all around and as directed for sizes 0.610 M x 0.460 M. Nirali or equivalent approved make.	EA	70		-
148	Providing and fixing PVC seat cover to European WC matching with the existing if any	EA	70		-
149	Providing and fixing heavy duty CP pillar cock - Pressmatic type to wash basin size 15mm of approved ISI make as directed.	No	70		-
150	Providing and fixing heavy duty CP Jali for nahni trap as directed of size 100mm dia.	EA	70		-
151	Providing and fixing 100mm dia CP shower with 300mm long arm .	EA	70		-
152	Providing and fixing heavy duty CP concealed <b>bib cock</b> size 12mm dia. of approved make with ISI mark as directed.	EA	70		-
153	Providing and fixing heavy duty CP concealed <b>Angle cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	70		-
154	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 12mm dia. of approved make with ISI mark as directed.	EA	70		-
155	Providing and fixing heavy duty PVC soap dispenser of standard size .	EA	70		-
156	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 20mm dia. of approved make with ISI mark as directed.	No	70		-
157	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 50mm dia. of approved make with ISI mark as directed.	No	70		-
158	Removing / dismantling old corroded GI pipe line size 12mm to 50mm dia. Work includes transportation to company store etc.	M	84		-
159	Providing all materials, services, tools, tackles, equipment, transport etc. for carrying out misc. plumbing repair works and Replacing float valve of flush tank size 12.5 mm dia.	EA	20		-
160	Providing and installation heavy duty jet spray including PVC Connector of approved make with ISI mark as directed.	EA	20		-
161	Providing and fixing heavy duty PVC high level / low level flush tank of standard size including all necessary fitting and fixtures of approved make with ISI mark as directed.	EA	20		-
162	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 12 mm dia.	No	20		-
163	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 19 mm dia.	No	20		-
164	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 25 mm dia.	No	20		-
165	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 39 mm dia.	No	20		-
166	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 50 mm dia.	No	20		-
167	Providing and fixing of PVC pipe for down take for 100 mm dia.	RM	35		-
168	Providing and fixing of PVC pipe for down take for 150 mm dia.	RM	35		-
169	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 12 mm dia	M	175		-
170	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 19 mm dia	M	175		-
171	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 25 mm dia	M	175		-
172	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 32 mm dia	M	175		-
173	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 38 mm dia	M	175		-
174	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 50 mm dia	M	175		-
175	Providing all tools & services for removing, rerouting and Refixing existing GI pipeline of 12 to 25 mm dia including all fittings required for the same.	M	70		-
176	Providing all tools & services for removing, rerouting and Refixing existing GI pipeline of 31 to 50 mm dia including all fittings required for the same.	M	70		-
177	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 12 mm dia	M	10		-

178	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 19 mm dia	M	10		-
179	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 25 mm dia	M	10		-
180	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 32 mm dia	M	10		-
181	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 40 mm dia	M	10		-
182	Providing and fixing of two way bib cock sicko, including all tools & tackles	No	10.00		-
183	Providing and fixing heavy duty CP concealed two way <b>bib cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	5.00		-
184	Providing and fixing heavy duty CP concealed two way <b>Angle cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	30.00		-
185	Providing and fixing heavy duty CP concealed two way <b>stop cock</b> size 12mm dia. of approved make with ISI mark as directed.	NO	30.00		-
186		NO	30.00		-
187	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	Litre	20000		-
188	Making chases upto 50 mm x 50mm in walls including making good and finishing with matching surface after housing G.I. Pipe etc.	M	500		-
189	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm) with necessary accessories and screws etc. complete. This item will cover a performance guarantee of 1 year, during this Guarantee period if any malfunctioning is observed the same shall be attended by the vendor within 2 day	EA	30		-
190	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete. This item will cover a performance guarantee of 1 year, during this Guarantee period if any malfunctioning is observed the same shall be attended by the vendor within 2 day	EA	30		-
191	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	Ea	50		-
192	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete. Size 50 mm	Ea	50		-
193	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately). Second class teak wood	M3	10		-
194	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (Only area of glass vision panel made in door shutter will be measured) : Rectangular or square	M2	20		-
195	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to steel windows by welding.	Kg	1000		-
196	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance $\pm 1$ mm), with wall thickness 2.0 mm ( $\pm 0.2$ mm), Extruded section profile size 48x40 mm with corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm ( $\pm 0.1$ mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame, Providing and fixing to existing door frames. 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm 0.3$ mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm 0.1$ mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification including necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places , complete as per manufacturer's specification and direction of Engineerin-charge.	M2	30		-
197	Providing and fixing stainless steel tower bolts with necessary screws etc. complete. 150 mm on existing door	EA	20		-
198	Providing and fixing stainless steel tower bolts with necessary screws etc. complete. 200 mm on existing door	EA	20		-
199	Providing and fixing stainless steel sliding door bolt with necessary screws etc. complete. 200 mm on existing door	EA	20		-
200	Providing & fixing stainless steel Door stopper with necessary screws etc. complete. Twin rubber stopper. on existing door	EA	20		-
201	Providing and fixing stainless steel door handel with necessary screws etc. complete 150 mm on existing door	EA	20		-
202	Providing and fixing stainless steel door handel with necessary screws etc. complete 150 mm on existing door	EA	20		-

203	Replacing broken window glasses (6 mm thk.) including fixing pins, weather bar and putties of approved quality (including scaffolding if required ) etc. complete.	M2	45		-
204	Providing and fixing 35 to 38 mm thick commercial flush door shutter with 1.5 mm thick laminate on both side of approved make and shade. Rate shall also include provision of 10 mm thick teak wood beading around the shutter, making it of appropriate size of existing door shutter, all the locking accessories, aldrops on both sides heavy duty brass hinges, heavy duty door closer hyper make sleek model, heavy duty 5" brass handles polishing or painting complete as directed. shutters to be fixed in existing frames.	M2	20		-
205	Providing and fixing 50 mm thick commercial flush door shutter with 1.5 mm thick laminate on both side of approved make and shade. Rate shall also include provision of 10 mm thick teak wood beading around the shutter, making it of appropriate size of existing door shutter, all the locking accessories, aldrops on both sides heavy duty brass hinges, heavy duty door closer hyper make sleek model, heavy duty 5" brass handles polishing or painting complete as directed. shutters to be fixed in existing frames.	M2	20		-
206	Providing, Erecting and Fixing Aluminum POWDER COATED fixed windows conforming to IS:1868. Main frame Shall be made out of hollow extruded sections of size 100mm*75mm*14mm gauge and panelled with 50 mm x 45 mm x 14 gauge top and bottom rails and styles, approved 5.5mm thick clear or opaque glass. All aluminum sections will be finished with anti corrosive rust proof powder coating of approved quality and shade all as per IS codes or as directed.The rate shall be include of filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly.	M2	35		-
207	Providing and Fixing Grid False Ceiling as per specificatiProviding and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. a) with Dune 600x600x16 RH-99 tiles (Tegular Edge./Board edge/Microlook Edge.) of Armstrong make. The rates shall be inclusive for making of opening for electrical fittings and AC blower and return air with appropriate supporting members. Only plan area will be payable. No deduction shall be made for opening left for AC blower and electric fittings and no payment shall be made for for providing additional supports around openings..	M2	35		-
208	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long , G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with: a) 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I.	M2	50.00		-
209	Repair to existing Gypsum board false ceiling with 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete but excluding the cost of painting as per direction of E-I-C	M2	50.00		-
210	Providing and fixing Anti static false flooring with load bearing capacity of 1200 kg concentrated load and 2000 kg /sqm distributed load, of Unitile Everest or equivalent consisting of: Stringers made out of die pressed channels 25x25x25 mm with two die pressed notches at the two ends to snap fit to the jack head for 300 mm height	M2	50		-

211	Providing, Erecting and Fixing Aluminum Anodized fixed partition fully glazed confirming to IS:1868.Main frame Shall be made out of hollow extruded sections of size 100mm*75mm*14mm gauge and panelled with approved 5.5mm thick or opaque glass. All aluminum sections will be finished with anti corrosive rust proof coating of approved quality and shade all as per IS codes or as directed. The rate shall be include of filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly as directed (Heavy duty sections)	M2	14		-
212	Providing & fixing upto 12 mm dia, 100 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
213	Providing & fixing upto 12 mm dia, 140 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
214	Providing & fixing upto 16 mm dia, 100 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
215	Providing & fixing upto 16 mm dia, 140 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
216	Making chases in walls for replacing, repairing GI conduits at all levels on vertical and horizontal faces with necessary staging to conceal GI conduits including finishing back the surface either smooth or sand faced over Brick masonry, PCC, RCC ( laying of conduit by other agency Size upto 100mm x 75 mm)	M	35		-
217	Providing, placing and fixing <b>profile pre-color coated galvalume RMP sheets or equivalent of 0.5mm</b> total coated thickness to match existing shade (bare galvalume thickness 0.47mm), <b>trough type</b> , zinc aluminum alloy coated (zinc aluminum coating not less then 150g/sqm ), MS high tensile sheet having minimum yield strength of 550MPa including coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting and DFT 5 microns over 5 micron primer on internal surface of sheeting and including all connections and matching fixtures and accessories such as but not limited to J or L bolts & hooks (8 mm, polymer coated), nuts with polymer washers, self tapping screws, protective polymer cap of matching color for bolts, should be supplied in suitable length as desired by Engineer in- charge. The sheet shall be fixed using self drilling /self tapping GI coated screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, etc., complete as per manufacturers recommendations for Sheeting for roof/Side etc.	M2	5000		-
218	Providing, placing and fixing <b>plain pre-color coated galvalume RMP sheets or equivalent of 0.5mm</b> total coated thickness to match existing shade (bare galvalume thickness 0.47mm), <b>plain sheet for flashing , ridges</b> , zinc aluminum alloy coated (zinc aluminum coating not less then 150g/sqm ), MS high tensile sheet having minimum yield strength of 550MPa including coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting and DFT 5 microns over 5 micron primer on internal surface of sheeting and including all connections and matching fixtures and accessories such as but not limited to J or L bolts & hooks (8 mm, polymer coated), nuts with polymer washers, self tapping screws, protective polymer cap of matching color for bolts, should be supplied in suitable length as desired by Engineer in-charge. The sheet shall be fixed using self drilling /self tapping GI coated screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, etc., complete as per manufacturers recommendations for Sheeting for roof/Side etc.				-
219	<b>P/F of corrugated GI Sheets</b> Providing & fixing 16 gauge corrugated GI sheet on roof & cladding with GI bolts, nuts, washers, sealant on bolt etc.	M2	100		-
220	<b>FRP Sheets</b> Providing & fixing new & approved quality <b>corrugated</b> FRP sheets of green colour, thickness 3 mm with new GI bolts, nuts, washers etc.	M2	100		-
221	Providing and fixing fully glazed sliding POWDER COATED windows. Outer frame shall be of size 100 mm x 45 mm x (14 gauge) anodised INDAL section of min. weight 6 Kg / 12' length. The 3 track Box Section (20 mm Series) Indal shall consist of a) Bottom rail size 90 mm x 45 mm (14 gauge) of min. weight 5.5 Kg / 12' length. b) Sides and top rail 90 mm x 32 mm (15 gauge) of min. weight 3 Kg / 12' length, and panelled with approved 5.5mm thick clear or opaque glass. including civil works for filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly.	M2	100		-
222	Providing all materials, tools, service etc. including providing and erecting scaffolding at all heights and carrying out Plaster of Paris punning (average 6 mm thk.) to existing walls as well as newly plastered surfaces in perfect line and plumb to prepare them to receive Acrylic emulsion paint.( Walls and Ceiling ) (Internal surfaces) including necessary surface preparation if required	M2	350		-
223	Providing all materials ,tools, tackles such as wire brush, putty blade,sand paper etc. for removing all loosely adhering material from the internal surface of existing wall, ceiling , plastered surface etc. & ensuring substrate should be clean, free from dust, grease & loose material. Moisten the wall with sufficient quantity of clean water prior to application of 1st coat of Birla White Wallcare Putty or equivalent. Allow the 1st coat surface to dry for at least 3 hrs after that rub the surface gently with the putty blade in order to remove all loose particles. Apply 2nd coat of putty, allow the surface to dry for 10-12 hrs after that rub the surface gently with the putty blade in order to remove all loose particles. Total thickness of the coats should be limited to average 1.5 mm thk.This also includes carrying out the work in perfect line and plumb & prepare them to receive paint.	M2	350		-
224	Providing & laying hume pipe 150 mm Dia confirming to IS 458 (Class NP3) in line and level in required slope or as directed including providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), M 10 concrete below joints but excluding excavation .	M	50		-

225	Providing & laying hume pipe 300 mm Dia confirming to IS 458 (Class NP3) in line and level in required slope or as directed including providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), M 10 concrete below joints but excluding excavation .	M	50		-
226	"Providing all materials, tools, tackles & services for Rehabilitation of RCC Structures as following a.) Repair damaged concrete members including stripping dilapidated and loose concrete, scrapping reinforcement with wire brush and cleaning the same with speciality chemicals( Rusticide SS ) in one or more coats as per manufacturer's specifications. b.) Providing and applying speciality chemicals ( Polyalk Fixoprime ) in recommended proportions to steel bars & exposed concrete in one or more coats as per manufacturer's specifications. c.) Providing and applying speciality chemicals ( Polyalk EP ) in recommended proportions with 1:4 mortar with quartz sand in one or more coats for average thickness of 25 mm as per manufacturer's specifications etc complete as directed.	M2	18		-
227	<b>Protection of RCC Structures by Rehabilitation</b> a)Providing all necessary materials & services to repair damaged concrete members including stripping dilapidated and loose concrete, scrapping reinforcement with wire brush and cleaning the same with speciality chemicals (Rusticide SS) in one or more coats as per manufacturer's specifications. b.) Providing and applying specialty chemicals (Polyalk Fixoprime ) in recommended proportions to steel bars & exposed concrete in one or more coats as per manufacturer's specifications. c.) Providing and applying specialty chemicals (Polyalk EP) in recommended proportions with 1:4 mortar with quartz sand in one or more coats for average 50 mm thickness as per manufacturer's specifications"	M2	35		-
228	Providing and fixing C class GI water pipes, confirming to IS:1239, and galvanized as per IS-4736, in vertical or horizontal positions at all heights including cutting, treading, bending and jointing with necessary C(Heavy) class GI fittings, such as tees, bends, unions, elbows, reducers, couplings, sockets flanges, plug ends, check nuts, etc. cuttings holes, chases in the walls or floors and making good the same with CM 1:4 providing necessary GI malleable clamps and supports and testing the line as specified etc. complete (rate inclusive of fittings and special) 75 mm dia	M	50		-
229	Providing and fixing C class GI water pipes, confirming to IS:1239, and galvanized as per IS-4736, in vertical or horizontal positions at all heights including cutting, treading, bending and jointing with necessary C(Heavy) class GI fittings, such as tees, bends, unions, elbows, reducers, couplings, sockets flanges, plug ends, check nuts, etc. cuttings holes, chases in the walls or floors and making good the same with CM 1:4 providing necessary GI malleable clamps and supports and testing the line as specified etc. complete (rate inclusive of fittings and special) 100 mm dia	M	18		-
230	Supplying & laying of Siporex block for wall 230mm thick and above in cement mortar(1:4) including scaffolding at all heights, curing, raking joints, etc.	M3	7		-
231	Making core cuts in RCC wall/slab etc. up to 100mm to 350mm Thickness 250 mm dia	NO	10		-
232	Making core cuts in RCC wall/slab etc. up to 100mm to 350mm Thickness 150 mm dia	NO	10		-
233	Supplying, fabricating, transporting to site and erecting GI grating in position hot dip galvanized members / structures fabricated as per approved drawings including galvanizing the sections (Zinc coating minimum 80-100 micron DFT) / accessories as per specifications and touch up zinc paint after galvanizing in areas where needed / approved after erection.(Grating size 500shall be as per drawing.All gratings will be supplied by Agency. Agency shall use his own all the tool & tackles to complete the entire work, as per the direction of the site engineer. Agency must approve the sample of grating by TATA Power representative before manufacturing of all the gratings.	Ton	3		-
234	Carefully opening the cracks in plaster, cleaning the cracks with electrical air blower/water & filling the cracks with polymer modified cementitious mortar in proportion 1:5:15 ( i.e. Polymer: cement: well graded quartz sand by wt.) including polymer bonding coat & seal coat, curing etc. complete. Note: Width of cracks upto 6 mm and depth upto 20mm.	M	18		-
235	Providing material, labor & services for oiling and greasing of shutters. Rates are inclusive of providing steel scaffolding	No	21		-
236	Providing all material, cleaning the roof surface and carrying out 3mm thick membrane (approved make) water proofing treatment as under below 1) Filling the cracks, Holes etc., with Tar Plastic (Cold Water Proofing Compound) 2) Applying oil primer T-10 UNDER ENTIRE SURFACE (0.3 liters per sqm) 3) Applying 3 MM thk. approved make modified water proofing membrane by torch welding with 100mm*100mm side and end laps without airgases 4) Applying one coat of bituminous base silver shield paints over entire work of membrane Note : Contractor should give 5 years guarantee.	M2	14		-
237	Providing all tools, tackles & equipment's necessary for trimming of tree branches inclusive providing and maintaining scaffolding till trimming activity, provision of fall arresting jali, making access to branches, ladder, cutting tools, crane if required, etc. complete as per requirement of job and instructions of engineer in charge. The rate should be inclusive of trimming tree, collecting & stacking debris near site & dispose off the debris in approved ground. Statutory payment will be paid by the Owner against official demand notes received from statutory bodies.	No	250		-
238	Cleaning of septic tank , including chambers with gully sucker & providing plumbing services including all required tools, tackles, materials & fixtures including loading, unloading & transpotation up of sewerage to identified disposal site etc complete as directed,	No	14		-
239	Cleaning of choked sewage chambers by providing plumbing services including all required tools, tackles, materials & fixtures including loading, unloading & transpotation up of sewerage to identified disposal site etc complete as directed,	Ea	14		-
240	Making soak pit 2.5 m diaeter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diaeter, 1.8 m long complete as per standard design. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	5		-
241	Cleaning of O/H water storage tank up to 1000 ltrs. i/c cleaning with potassium permanganate / bleaing powder and finally with clear water complete.	EA	20		-

242	Providing all necessary material, tools, tackles & services for supplying & laying MS grating of sizes and of the design as per drawing approved by Owner,	MT	2		-
243	Providing & applying two coats of Elastomeric coating having 200-300% elongation over a coat of primer over properly prepared plaster surface including scrapping all loose material on existing plastered surface etc.	M2	100		-
244	Supplying, Providing and laying, un-coursed random rubble masonry in cement mortar 1:5 with approved local stones of good quality for walls / footings, etc. and as fill under foundations in true line and levels, including curing, de-watering wherever necessary, raking of joints etc. complete for work below ground/grade level at all depths and grade level up to plinth etc.,	M3	21		-
245		M2	35		-
246	Making khurras 45 x 45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x 1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete	EA	20		-
247	Providing and fixing interlocking concrete paver blocks of 80mm thk. of M40 grade. Concrete paver blocks shall be uniformly shaped (monolithic #single layer precast concrete blocks) of specified color and pattern as per technical specification, placed on avg. thickness of 50 mm uniformly graded river sand cushioning with proper compacting with mechanical compactor with the proper level, grade and camber etc. complete as directed. The side joints / Open ends should be filled / sealed by M-25 grade concrete as required etc. he testing of paver blocks shall be arranged by the contractor at the time of approval and during execution of job at their own cost.	M2	100		-
248	<b>Providing 60 feet long Man lifter upto 60 feet long for civil work including</b> providing services for civil work irrespective of height and location of the work complying with all safety rules and procedures of company practices followed in company complete as directed by the Owner	day	75		-
249	Providing services for removal of choke from sewage line using municipal gang with sucking machine	EA	50		-
250	Providing all your materials , tools tackles marking and painting of strip, width 75mm to 150 mm, for road / passage marking with synthetic enamel, brushe, solvent, tools and tackles, skilled painter for cleaning and preparing the surface by scrapping sand papering to remove loose scale, making the surface plain and marking the strip, painting two coat over a coat of primer in perfect strip and painting two coat in perfect alignment marking	M2	50		-
251	Providing all your materials , tools tackles marking and painting of speed breaker, zebra crossing, kerb stones, skilled painter for cleaning and preparing the surface by scrapping sand papering to remove loose scales, grease, making surface plain and marking the strips and painting in two coat of synthetic enamel paint over a coat of primer in perfect alignment	M2	20.00		-
252	Providing and fixing of roller blind for window, providing all equipment, material, tools, tackles etc. for fixing blinds for windows of approved make and shade etc.	M2	50		-
253	providing and fixing of blind, type: vertical, width: 75 mm, providing all equipment, material, tools, tackles etc. for fixing blinds of approved make and shade etc.	M2	50		-
254	Providing and fixing of sun control film of approved make like Garware or equivalent including providing all equipment, material, tools, tackles etc. for fixing sun film without any air bubbles / scratches.	M2	50		-
255	Providing and fixing fibre sheet of 3 mm thickness inclusive of all fastners, nuts, bolts etc and inclusive of labour complete	NO	10		-
256	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 100 m outside of periphery of the area cleared.	M2	7.00		-
257	Supplying, diluting and injecting chemical emulsion PRE CONSTRUCTIONAL ANTI- termite treatment and creating a continuous chemical barrier under and all around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surrounding of pipes and conduits etc. complete as per IS codes & specifications (plinth area of the building at ground floor only shall be measured for payment) a) Chlorphyriphos Emulsifiable concentrate 20% with 1% concentration Note : Contractor shall have to furnish from the specified agency carrying out the work under anti-termite treatment a written corporate guarantee on non-judicial stamp paper of Rupees 100 in favour of Owner for the satisfactory performance of the treatment for a period of ten years	M2	200.00		-
258	Supplying, diluting and injecting chemical emulsion POST CONSTRUCTIONAL ANTI-termite treatment creating a continuous chemical barrier i/c all the wood work, door frames, wooden cabinets, almiraahs, wall mounted cabinets, work stations, wooden partitions etc. (floor area of the building only shall be measured for payment) a) Chlorphyriphos Emulsifiable concentrate 20% with 1% concentration. Note : Contractor shall have to furnish from the specified agency carrying out the work under anti-termite treatment a written corporate guarantee on non-judicial stamp paper of Rupees 100 in favour of Owner for the satisfactory performance of the treatment for a period of ten years	M2	200.00		-
259	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ±1mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineerin-charge. Extruded section profile size 48x40 mm	M	35.00		-

260	Providing and fixing to existing door frames. 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm$ 0.3 mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm$ 0.1 mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places	M2	10.00		-
261	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 120 mm	EA	100.00		-
262	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 160 mm	EA	100.00		-
263	Providing and fixing IRC fabric (welded mesh) of size 35x75 mm of required guage to the frame of MS angles, channels, tees, flats etc. at all floor levels including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer as required. In frames, gates etc. (Cost of MS frame will be paid separately). Fixed to steel frames by welding.	Kg	5000.00		-
264	Providing and fixing stainless steel ( Grade 304) gate, grill, railing etc. made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, including fixing the gate with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose weight of stainless steel members shall be considered including fixing s.s. accessories such as nuts, bolts, fasteners etc.)	Kg	500.00		-
265	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. Single socketed pipes including all fittings, clamps, spacer etc.. 110 mm dia	M	50		-
266	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. a) single socketed pipes. including all fittings, clamps, spacer etc. 150 mm dia.	M	50		-
267	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long , G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with: a) 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I.	M2	50		-
268	Providing and fixing Vitreous china Urinal partition of standard design and required color, of Hindustan / Parryware or eq. make using screws etc complete	EA	10		-
269	Providing and fixing 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with CP brass screws and washers complete.	EA	10		-
270	Providing and fixing CP brass Jet and accessories to english type WC of approved quality and make complete.	EA	10		-
271	Providing and fixing CP brass bottle trap of approved quality.	EA	10		-
272	Providing and fixing low height opaque partition 54mm thick from floor to desired height (below false ceiling) consisting of 45x45mm 1st class kail wood frame work with a fire retardant paint applied on it forming frame work at 450-600 C/C nominal in both directions fixed rigidly in flooring and side support by screws/GI cleat etc. The frame work shall have one side 8/9mm thick commercial ply and gap in frame work filled with 45mm thick up tuiga mineral fibre wool with a density of 50 kg/M <sup>3</sup> , exterior sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kal wood runner and making provision for laying conduits switches box with 8 x 75 mm teak wood or laminated skirting, polishing etc complete.	M2	12.00		-

273	Providing and fixing suspended Gypsum board ceiling (straight, vertical & curved) consisting of fixing GI perimeter channels of 27mm x0.5mm thick having one flange of 20mm and another flange of 30mm along with perimeter of the ceiling, screws fixed to RCC/ Brick/foam block walls/ gypsum board partitions with the help of rawl plugs and screws. The suspending GI intermediate channels of size 45x0.55mm th. With two flanges of each from the soffit @1200mm centre with GI hangers of 25mm x 0.5mm thick Fixed to soffit with GI cleat and steel Expansion fasteners and to intermediate channel with GI nut and bolt. Ceiling section of 0.5mm thickness having knurled wedge of 51.5 mm and two flanges of 26mm each with lips of 10.5mm then fixed to the intermediate channel with the help of connecting clips and in direction perpendicular to the intermediate channel at 450mm centers, 12.5mm th. Tapered edge gypsum plaster board (confirming to IS 2095-1982) is then fixed with screws to ceiling section with 25mm dry screws at 230mm centers at the underside of ceiling section framing. Screws to be fixed mechanically either with screw driver or drilling machine with suitable attachment, providing angle beads and edging beads wherever necessary, finishing even appearance. P/f trap doors made of laminated boards with wooden frames, p/f wooden shadow battens (holloc wood, black enamel painted - 25x40mm) at wall peripheries and ends, extra frame work for fixing lights, making cutouts for electrical / HVAC / plumbing works etc. complete.	M2	12.00		-
274	Providing and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. a) with Dune 600x600x16 RH-99 tiles (Tegular Edge./Board edge/Microlook Edge.) of Armstrong make	M2	17.00		-
275	Providing and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. b) with Ultima 600x600x19 RH-95 tiles (Tegular Edge./Board edge/Microlook Edge) Of Armstrong make	M2	12.00		-
276	P/F full ht. in approved pattern opaque / partly glazed (with 5.5 mm thk.glass fixed with lnd class teak wood beading ) partition 63-65 mm thick from floor to false ceiling consisting of 45x45mm 1st class. kail wood frame work with a fire retardant paint applied on it forming frame work at 450-600 c/c in both directions fixed rigidly in flooring and ceiling by screws/GI cleat etc. The frame work shall have on both sides 9mm thick commercial ply and gap in between filled with 45mm thick UP tuiga mineral fibre wool of density 50 kg/M³, exteriors sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kail wood runner and making provision for laying conduits switches boxes with 8 x 75 mm teak wood or laminated skirting , polishing etc complete, as per instruction of Engineer in charge.. (Any frame work beyond partition height shall be paid extra)	M2	12.00		-
277	P/F full ht. in approved pattern 55 mm thick from floor to false ceiling consisting of 45x45mm kail wood wood frame work with a fire retardant paint applied on it forming frame work at 450-600 c/c in both directions fixed rigidly in flooring and ceiling by screws/GI cleat etc. The frame work shall have on one sides 9mm thick commercial ply,exteriors sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kail wood runner and making provision for laying conduits switches boxes with 8 x 75 mm teak wood or laminated skirting , polishing etc complete, as per instruction of Engineer in charge..	M2	7.00		-
278	P/F toilet's & pantry's counters underneath fascia of 300mm wide of desired length made up of 19mm thick commercial Board with 1.0mm laminate on user side and with balancing white on other side with 4 mm second class teak margin on top and bottom end fixed with kail wood batten of cross section 45x45mm along the horizontal length of fascia and of 45x45mm along the two extreme vertical ends, if required, (the cost of frame shall be paid extra) completed in all respect.	M	3.00		-
279	Chipping , cleaning of concrete from columns, beams and slab manually including scaffolding as directed by Engineer – in - charge and disposal of malba with in 50 m lead.	M2	40.00		-

280	Providing & fixing L shaped modular workstation fixed on medium ht partitions (MHPs) of 45mm thk panel based partition system of 1200mm ht having approved quality Aluminium section, rigid framework. The partitions shall have two concealed raceways (at bottom and mid place) in steel and covered in extruded aluminium powder coated and ABS plastic caps. The panel should have a combination of 9mm thk pre laminated soft pin up boards, and white board with matching skirtings and aluminium powder coating top trim on the top of the partition. Glass separator of 8mm thk with polished edge to be fixed between the two work tops. The work top made of 25mm thk pre laminated particle board of approved make and quality and balancing laminate of approved thickness on the unexposed surface. The work top shall be 600mm deep and are to be fixed on the partitions at 750mm ht from the FFL. All the exposed edges to have PVC edge band, the work top should be well matched in profile at corners, etc. (Size 1500 L x 1500mm W x 750mm H.) and Providing pedestal drawer units of overall dimensions of 400mm width, depth 450mm and ht 725mm having 3 drawers with locking arrangement. The inner drawer should be made of pre laminated particle board of 18mm and smooth sliding telescopic arrangement. The pedestal drawer unit shall have 18mm thk pre laminated matching and approved colour. The overall unit shall have adequate provision fixed underneath the work tops at desired locations, thereby also supporting the work tops at such places directly and neatly. with prefixed Keyboard Tray with Telescopic slides made up of ABS plastic body	EA	1.00		-
281	Providing and fixing 45mm thick panel based partition system of 1200mm ht. having approved quality Aluminium section, rigid frame work. The partition shall have two concealed raceways (at bottom and mid place) in steel and covered in extruded aluminium powder plastic caps. The panel should have a combination of 9mm thick pre laminated board, soft pin up board etc. with matching skirtings and aluminium powder coating top trim on the top of the partition complete	M2	1.00		-
282	Providing and Fixing 18mm thick pre laminated gable end fixed below the work top to balance the same. The exposed edges shall be covered and sealed with 2mm thick PVC edge bending	M2	1.00		-
283	P/P circular meeting table of 1500 mm dia - 760 mm(ht) top made up of 19mm thick commercial block board with 2.0mm thk. top veneered, with 25x30mm second class teak moulding, finished in stained spirit polish with water proof melamine finish, resting on circular shape pedestal of 900 dia made up of 50x50 mm hard wood frame work placed at a distance of 400 – 450 mm c/c in both directions, wrapped with 3mm flexible ply in layers, laminated from outer exposed side resting on 100mm wide skirting, complete in all respect.	EA	2.00		-
284	EXECUTIVE TABLE: Providing & fixing in position consisting of the followings:Top made out of 19mm comm. board, with second class teak wood moulded edging of size 32x 50 mm, with Treated wood support fr. of size 45x50 at 450c/c.The apron structure is made of 19mm th. comm. board with inner frame work of tr. wood of size 40x50mm at nominal 450c/c, with extra frame for the tapered corner edges, fixed to table top frame work. The apron and table top is to receive 1.0 mm lamination. Skirting band shall be of size 12x100mm with moulded top edge. The inner side of the apron shall have 12mm comm ply from inside to the frame work to provide finished surface. The drawer unit structure is made out of 19mm comm. bd. with drawers facia and inner structure of 115x12mm teak wood with base ply of 6mm ply with the facia edges having 12x10mm moulded beading and to receive 1.0 mm th. laminate same as the table. The table unit is to be melamine polished water proof matt finish.The drawers are to be sliding on nylon runners in aluminium channels, locking arrangement handles, brass hinges foot-rest etc.a) 1800x750x750 mm	EA	2.00		-
285	EXECUTIVE TABLE: Providing & fixing in position consisting of the followings:Top made out of 19mm comm. board, with second class teak wood moulded edging of size 32x 50 mm, with Treated wood support fr. of size 45x50 at 450c/c.The apron structure is made of 19mm th. comm. board with inner frame work of tr. wood of size 40x50mm at nominal 450c/c, with extra frame for the tapered corner edges, fixed to table top frame work. The apron and table top is to receive 1.0 mm lamination. Skirting band shall be of size 12x100mm with moulded top edge. The inner side of the apron shall have 12mm comm ply from inside to the frame work to provide finished surface. The drawer unit structure is made out of 19mm comm. bd. with drawers facia and inner structure of 115x12mm teak wood with base ply of 6mm ply with the facia edges having 12x10mm moulded beading and to receive 1.0 mm th. laminate same as the table. The table unit is to be melamine polished water proof matt finish.The drawers are to be sliding on nylon runners in aluminium channels, locking arrangement handles, brass hinges foot-rest etc.b)1500x750x750mm	EA	2.00		-
286	P/P Executive table of size 1800x900x750mm (ht) rectangular in with following components. Top made up of 30mm thick MDF board with sides from user end and visitor i.e along full length of top, ends in full round post formed in flex as per manufacturer specification and in back with balancing white, with cable manager, modesty panel 450mm wide in 18mm MDF board edges at both end full round circle post formed with flexes as per specification, resting on drawer unit and side unit at each end with provision of computer key tray. Drawer unit made up of 18mm thick MDF board Boxed from all three sides and top resting on 100mm wide recessed laminated skirting of size 300x600x760 mm (ht) with one No. drawer unit of 130mm wide running on side runner and rest in shutter (18mm MDF) with both ends half round rounded off post formed with flex as per manufactures specification and rest from inside in 1 mm white glossy laminate, complete in all respect in terms of concealed hinges, Magnet, locks, handles etc. Side units made up of 18mm thick MDF board , boxed from all three sides and top divided in to three parts , all laminated with 1mm glossy white laminate from inside; with first two horizontal shelves in 12mm MDF board post formed with full round from user side with sliding shutter made up of 18mm MDF board both end half round rounded off in post forming from user side and remaining in balancing white shutter running on slide, brand hanfa on PVC guidelines and PVC channels color brown with recessed handle, key etc. complete in all respect and remaining portion under table top opened for CPU, from front side, rest boxed, laminated from inside all resting on 100mm wide laminated slirting complete in all respect in terms of accessories.	EA	2.00		-

287	Storage unit/Side cabinet, filling cabinets consisting of 19mm thick commercial board structure, partitions, shelves, back with top moulding of 40x40mm and skirting of size 12x100mm with moulded edge. The shutters of divisions as per design shall be made of 1.0mm laminate and shutter edges to have 32x12mm moulding all around. Drawers construction shall be similar to that of the table. All exposed surface, top sides, finished in 1.0mm lamination of approved shade and texture. Brass hinges, brass ball catcher, locks to all shutters, melamine water cut matt finish, complete as per details (ii) 1050x450x675mm	EA	2.00		-
288	FMC (Low ht.) Providing making and fixing filing cabinets firmly fixed to the wall / partition and grouted to floor, 375 -450 mm deep comprising of 19 mm commercial board for shelves, bottom, shutters, apron, with all exposed of the cabinet with 1.0mm thk. lamination as per approved texture design including skirting 75 to 100 mm high laminated, all cut edges of shutter to have 25x12mm moulded teak lipping, All hardware of brass plate hinges, locks, with all wooden surface to be stained spirit polished with melamine finish. Interior of the Cabinets to have 3 coats of synthetic enamel paint with a coat of primer and back side should have 9 mm thick ply with primer. (measurement will be made for front elevation of the cabinet) a) 19 mm commercial board top with 1.0 mm thk. laminate	M2	2.00		-
289	FMC (fl to ceiling) Providing making and fixing filing cabinets firmly fixed to the wall / partition and grouted to floor, 375 -450 mm deep comprising of 19 mm commercial board for shelves, bottom, shutters, apron, with all exposed of the cabinet with 1.0mm thk. lamination as per approved texture design including skirting 75 to 100 mm high laminated, all cut edges of shutter to have 25x12mm moulded teak lipping, All hardware of brass plate hinges, locks, with all wooden surface to be stained spirit polished with melamine finish. Interior of the Cabinets to have 3 coats of synthetic enamel paint with a coat of primer and back side should have 9 mm thick ply with primer. FMC (fl to ceiling) (measurement will be made for front elevation of the cabinet) a) 19 mm commercial board top with primer	M2	2.00		-
290	CONFERENCE ROOM TABLE.: Conference room table oval shaped, consisting of the followings: Top is made of 19mm comm grade board, with base frame of treated wood of size 50x 40 mm at nominal distance of 550-600mm in both directions. The table top is to have edging of moulded second class teak of size 45 x 60mm all along the length of the top, is to be rendered with 1.0 mm th. lamination of approved shade as directed. The base pedastal is 'T' shaped -2 nos., fixed to the frame work of table top, comprises of hard wood framework of size 32x40mm at 450-500 c/c, with extra frame at the rounded edges, and at the skirting lvl., The frame work of the base pedastal is to have 19mm block board onto both sides of frame work, with t.w. moulded edge frame of size 70mm x 40mm at the vertical and the bottom edge. the exposed surface is to be rendered with 1.0 mm lamination of approved shade and texture. The table is to have stained spirit polish with water cut melamine finish. (ii) OVERALL SIZE 2100X 1050X750MM HIGH	EA	2.00		-
291	P/P drawer unit of size 770x450x730mm (ht) made up of 18mm thick MDF board, boxed from all three sides & top, inside laminated with 1.0mm white glossy, Double Shutter, edges rounded off exposed surface post formed with flex as per manufacture specification of approved shade and rest from inside with balancing white as per manufacturer specifications resting on 100mm wide recessed laminated skirting with one intermediate horizontal shelf, complete in all respect in terms of concealed hinges, handles, magnets locks etc. (Make: Godrej/Hettich))	EA	2.00		-
292	Providing and fixing and placing in position three drawers unit of size 415x450x725mm including hardware fitting half crank hinges brass handle multipurpose lock Godrej/Hettich make drawer channel etc. all complete as per item Nos 60-62 and as directed by EIC.	EA	2.00		-
293	Conference Table: (3000x1000): S&I Conference Rm. Table 40 mm thk formed out of 19 mm thick board top and 6mm thk ply bottom with filler piece to achieve 40mm thk. All edges to be strengthen in requisite width to form a profile of 40mm edges to receive moulding out of wood 40x40 mm matching to veneer as per detail and approval of Client. Top shall be finished in patterned veneer with grains/inlays as per details with 3 or more coats of melamine spray polish and fixed on drum pedestals as per design and detail of architect.	EA	2.00		-
294	Providing and fixing 12 mm thick toughened glass door of required size and design with patch fitting, 18" long heavy duty steel handle with necessary screws and floor spring, door lock (ozone/doorset make) etc. complete.	M2	10.00		-
295	Providing and fixing 12 mm thick toughened glass partition r of required size and design with patch fitting and associated works etc. complete.	M2	30.00		-
296	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	300.00		-

297	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	220.00		-
298	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side	M2	45.00		-
299	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides.	M2	45.00		-
300	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item) With float glass panes of 5.5 mm thickness	M2	30.00		-
301	Repairing of aluminum doors/windows/ventilators by changing damaged butt hinges, screws i/c dismantling and refixing the leaf, tightening of corner screws etc. complete job. For repairing up to three leafs at one location (Rate per leaf of any size).	EA	20.00		-
302	Fixing of available aluminium partition with glass and board including screws, transportation to site etc. complete in all respect as directed by EIC	M2	15.00		-
303	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item); With float glass panes of 5 mm thickness	M2	12.00		-
304	Providing and fixing 12 mm thick toughened glass door of required size and design with patch fitting and floor spring (ozone/doorset make) etc. complete.	M2	9.00		-
305	Providing and fixing handle (18" long) of Ozone/doorset make for toughened glass door with necessary screws etc. complete.	EA	8.00		-
306	Providing and fixing aluminium hinges upto 150 mm in aluminium doors / windows / ventilators i/c screws etc. complete	EA	12.00		-
307	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : b) For fixed portion Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15). With Champagne colour anodising.	Kg	200.00		-
308	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15) with champagne colour	Kg	200.00		-
309	Providing and fixing aluminium Handle for RHS/LHS aluminium windows of similar finish as for window including cleats, screws etc complete	EA	25.00		-
310					-
311	Pruning the branches of tree as required including arrangement of ladder, axe, saw etc to complete the job including removing of vegetation from site to the dumping yard upto any lead and lift.	EA	20		-
312	Proving all your equipment, tools and tackles and rendering services of Tree trimmer along with helper and consumables for trimming , pruning, cutting of branches required for lighting , safety purpose as per requirement at site complete as per direction of Owner.(The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	day	15		-

313	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x 2mm and braced with flat iron diagonals 20x5 mm size with top and bottom rail of T-iron 40x40x6mm with 40mm dia, steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles including applying a priming coat of approved steel primer.	M2	10		-
314	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x0.90 mm M.S. laths with 0.90 mm thick top cover	M2	10		-
315	Providing and fixing IRC fabric (welded mesh) of size 35x75 mm to the frame of MS angles, channels, tees, flats etc. at all floor levels including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer as required. In frames, gates etc. (Cost of MS frame will be paid separately). Fixed to steel frames by welding.	KG	75		-
316	Providing & Fixing asbestos cement 6mm thick corrugated sheets roofing up to any pitch and fixing J or L hooks, bolts and nuts 8mm dia. G.I. plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete (excluding the cost of purlins, rafters and trusses), including cutting sheets to size and shape wherever required.	M2	200.00		-
317	Providing and fixing ridges and hips in asbestos cement sheet roofing with suitable fixing accessories or self drilling fastener and EPDM washer etc. complete. Plain ACC ridges	M	100.00		-
318	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for therequired duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineerin- charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding. As per the safety requirement indicated in the safety manual of Owner. Note: - This item to be executed for work to be done by other agency as [er the requirement of Owner complete as directed.	M2	500		-
319	Injecting approved epoxy system into cracks at required pressure, cutting of nipples etc complete. (weight of epoxy shall be measured)	Kg	20.00		-
320	Injecting cement/cement sand slurry into cracks at required pressure, cutting of nipples etc. complete (weight of cement shall be measured)	Kg	90.00		-
321	Providing, drilling and inserting injection nipples along cracks linesor as directed by E.I.C for epoxy grouting or cement/cement sand slurry grouting.	EA	180.00		-
322	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : 150x100 mm P type. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	5.00		-
323	Providing and fixing square-mouth S.W. gully trap grade class SP-I complete with C.I. Grating brick masonry chamber with water tight C.I. Cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design: 180x150 mm P type. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	3.00		-
324	Electrical Works				-
325	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.- Group A	Point	400.00		-
326	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.-Group B	Point	100.00		-
327	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required-Group C	Point	50.00		-
328	Wiring for light point /fanpoint/exhaust fan/call bell point with 2X1.5 + 1X1.5 Sq mm PVC insulated copper conductor wires in recessed/surface PVC conduite,with modular switch,modular plate,suitable G.I box and earthing the point with 1.5 sq mm copper conductor wire etc as required. (Excluding of Ckt wiring from D.B to switch boards)Single light point controlled by a 6Amps modular type switch.(e) Three light points controlled by a 6Amps modular type switch.	EA	25.00		-
329	Wiring for light point /fanpoint/exhaust fan/call bell point with 2X1.5 + 1X1.5 Sq mm PVC insulated copper conductor wires in recessed/surface PVC conduite,with modular switch,modular plate,suitable G.I box and earthing the point with 1.5 sq mm copper conductor wire etc as required. (Excluding of Ckt wiring from D.B to switch boards)Single light point controlled by a 6Amps modular type switch.(f) four light points controlled by a 6Amps modular type switch.	EA	25.00		-
330	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 1X 1.5 Sqmm	M	500.00		-

331	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3 X 1.5 Sqmm	M	1500.00		-
332	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 2.5 Sqmm	M	3000.00		-
333	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 4 Sqmm	M	2000.00		-
334	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 6 Sqmm	M	100.00		-
335	WIRING 4x10+2x6 sq mm Supply and drawing of following sizes of PVC insulated stranded copper conductor wires of 1100 Volts grade in existing conduit, pipe including connection/termination etc as required.(e) 4x10+2x10 sq mm	M	200.00		-
336	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 16 sq. mm + 2 X 6 sq. mm earth wire	M	50.00		-
337	Providing and fixing of plug - in type telephone socket outlet (RJ-11) with G.I.outlet box and cover plate complete as required. Single plug in type	EA	100.00		-
338	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required- 4 Pair	M	2500.00		-
339	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required- 50 Pair	M	100.00		-
340	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 20 mm	M	200.00		-
341	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 25 mm	M	2500.00		-
342	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 32 mm	M	75.00		-
343	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 40 mm	M	100.00		-
344	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 50 mm	M	100.00		-
345	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 5/6 amps switch	EA	25.00		-
346	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 2 way 5/6 amps switch	EA	50.00		-
347	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 15/16 amp switch	EA	50.00		-
348	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 3 pin 5/6 amp socket outlet	EA	50.00		-
349	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 6 pin 15/16 amp socket outlet	EA	50.00		-
350	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 1 -2 Module	EA	100.00		-
351	Supply and fixing of 6/16 Amp switch, sockets of MK make modular type in PVC/GI box complete in all respects with testing & commissioning.	EA	150.00		-
352	SWITCHED SOCKET OUTLETS (6 A AND 16 A) Supplying and fixing of a set of 2 Nos 6 A Socket outlets and one no 16 A Socket controlled by 16 A Master Switch of MK make including GI/PVC box, connections complete in all respect	ST	25.00		-
353	SWITCHED SOCKET OUTLETS (6 A) A set of 2 Nos. 6 A switched socket outlets (FOR UPS )in a box, with providing & fixing 2 nos. 2/3 pin 6 A switches & socket outlets( But switch& socket should be at defferent possition or as required)..	ST	200.00		-
354	Supply & fixing of a set of one 6 amp switch & socket of modular type with suitable size G.I box.	EA	300.00		-
355	Supply & fixing of anchor make batten typ lamp holder & one no 11 watt CFL	EA	20.00		-
356	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as requireds	EA	100.00		-
357	INDUSTRIAL SOCKET OUTLETS (25/32A DPMCB) Supply, installation, testing & commissioning of industrial type plug and socket outlet with SP/TPN MCB (10 KA motor duty) mounted on a sheet steel enclosure including termination, earthing etc as required . (b) Supply and fising of 25/32 Amp DP MCB (C series) of approved make in MS encloser	EA	100.00		-
358	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	EA	25.00		-
359	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB omplete with connections, testing and commissioning etc. as required. Single pole	EA	250.00		-
360	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole and neutral	EA	20.00		-

361	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Triple pole	EA	20.00		-
362	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 25 amps	EA	60.00		-
363	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	EA	30.00		-
364	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	EA	30.00		-
365	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps MCB four pole.	EA	25.00		-
366	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 25 amps	EA	25.00		-
367	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	EA	25.00		-
368	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	EA	5.00		-
369	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32amps 240 volts "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	EA	30.00		-
370	Supplying and fixing TP sheet steel enclosure on surface/ recessed along with 16/25/32amps 415 volts "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	EA	15.00		-
371	Supply & fixing of single phase 3-pin 32 Amp rating floor mounted industrial sockets weather proof IP 67 of Legrand/Neptune /Balls make complete pair with male & female type plug & socket arrangement.	EA	50.00		-
372	Supply & fixing of 63 Amp 3 phase 5 pin IP 65 industrial socket with top & complete with encloser & 3 phase MCB of 63 amp rating of HAGER / Legrand /L&T /Merlingerin make	ST	10.00		-
373	Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 30 A, "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	EA	20.00		-
374	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 4 way (4 + 12), Double door	EA	10.00		-
375	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 6 way (4 + 16), Double door	EA	10.00		-
376	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 8 way (4 + 24), Double door	EA	10.00		-
377	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, EArth bar, din bar for mounting MCB's (but without MCB's and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 12 way (4 + 36), Double door	EA	10.00		-
378	Providing and fixing following rating and braking capacity and 3 pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.125 Amp, 16 KA,TPMCCB	EA	10.00		-
379	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 12 way, Double door	ST	10.00		-
380	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 8 way, Double door	EA	10.00		-

381	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 16 way, Double door	EA	10.00		-
382	VTPN (ACDB): 6W TPN Supply, installation, testing and commissioning of following double door type distribution boards fabricated out of 16 SWG, CRCA sheet steel recessed in wall or surface mounted. 6-way TPN AC DB double door type (IP 43),consisting of one no100 Amp TP MCCB (10 KA) as in commer & 18 no 25/32 Amp S.P MCB as out going.	ST	10.00		-
383	VTPN DB (ACDB): 8W TPN Supply, installation, testing and commissioning of following double door type distribution boards fabricated out of 16 SWG, CRCA sheet steel recessed in wall or surface mounted. 8 -way TPN AC DB double door type (IP 43),consisting of one no100 Amp TP MCCB (10 KA) as in commer & 18 no 25/32 Amp S.P MCB as out going.	ST	10.00		-
384	Supply, laying & fixing of following sizes of Cu/GI strip/wire clamped to walls, cable trays etc for equipment/ System earthing complete as required including inter connection between length at joints, all fixing accessories saddles, clamps etc and other fixing hardware material as required for proper installation.8 SWG G.I Wire	M	100.00		-
385	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	EA	10.00		-
386	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	ST	10.00		-
387	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	ST	6.00		-
388	Supply, Installation, Testing & Commissioning of Advance Miantenance Free Chemical Earthing System of 10 feet length, 63mm dia, 2 mm thick electrolytic grade copper tube duly filled with conducting chemicals with the permanant sealings at the both the ends with the lead terminal at the top along with 50 Kgs a chemical GEM to retain the life span of 15 years with the heavy duty poly plastic earth pit cover. The chemicalearthing system should be fabricated with earthing electrode and back fill compound which has the capability to enhance the ground connectivity. The connectivity should be extended to the place of equipment thourgh the copper strip which will be burried under ground.The specification of the electrode are as under a) Electrode should be 3 meter long 63mm thick in diameter =0 1 no B) Should be made of galvinsed steel (90-100) microns with pipe in pipe technology C) Annular space filled with high conductive and anti corrosive withhigh conductive and anti corrosive crystalline conductive mixture D) Should be strong and corrosion resitant E) Manufactured in accordance with PS 3043-1987 (Code of pratice of earthing) F) Electrode should be dug in ground Sralong with soil friendly, moisture retaining back fill compound which has capability to enhance groundconductivity (min 125Kg of back fill compound for earthing system) G) The result should be below 1 Ohm in any case .	ST	2.00		-
389	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	M	100.00		-
390	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	M	200.00		-
391	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 2.5 Sq mm Copper armoured XLPE cable	M	20.00		-
392	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 4 Sq mm Copper armoured XLPE cable	M	20.00		-
393	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 6 Sq mm Copper armoured XLPE cable	M	20.00		-
394	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC <u>insulated Aluminium conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. b) 3 core 6 Sq. mm Aluminium	M	250.00		-
395	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. a) 2 core 10 Sq. mm Aluminium	M	250.00		-
396	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 3 C x 10 Sq.mm	M	250.00		-
397	4CX10sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. b ) 4 core 10 Sq mm Aluminium	M	250.00		-
398	4CX16 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 16 Sq mm Aluminium	M	250.00		-
399	4CX25 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 25 Sq mm Aluminium	M	100.00		-

400	4CX35 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 35 Sq mm Aluminium	M	100.00			-
401	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 50 Sq.mm	M	50.00			-
402	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4C x 95 Sq.mm	M	25.00			-
403	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 185 Sq.mm	M	25.00			-
404	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 300 Sq.mm	M	25.00			-
405	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Upto 25 sq. mm	M	500.00			-
406	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Above 25 sq. to 120 sq. mm	M	50.00			-
407	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Above 120 sq. mm to 400 sq. mm	M	50.00			-
408	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes <b>on surface</b> as required:- Upto 25 sq. mm	M	50.00			-
409	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes on surface as required:- Above 25 sq. to 120 sq. mm	M	50.00			-
410	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes on surface as required:- Above 120 sq. mm to 400 sq. mm	M	50.00			-
411	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following sizes in the existing RCC/ HUME/ STONEWARE/ METAL pipe as required:- Upto 25 sq. mm	M	50.00			-
412	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following sizes in the existing RCC/ HUME/ STONEWARE/ METAL pipe as required:- Above 25 sq. mm to 400 sq. mm	M	50.00			-
413	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 3 C x 10 Sq.mm	ST	30.00			-
414	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 10 Sq.mm	ST	30.00			-
415	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 16 Sq.mm	ST	30.00			-
416	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. End termination 4 X 25 sq. mm (28mm)	ST	5.00			-
417	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. End termination 4 X 35 sq. mm (32mm)	ST	5.00			-
418	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 50 Sq.mm	ST	15.00			-
419	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 95 Sq.mm	ST	10.00			-
420	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 185 Sq.mm	ST	5.00			-
421	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4C x 300 Sq.mm	ST	5.00			-
422	Supply and fixing of 36 watt T8 or 28 watt T5 lamps in existing light fixtures.	EA	5.00			-
423	Supplying and Fixing of Flood light of philips Out door type BRP 022 LED - 21 watt LED street light fittings of Philips including GI pipe for mounting the light and accessories like clamps, bolt, nut etc with testing and commissioning in all respect.	EA	2.00			-
424	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. b) 1x 18 Watt LED wall light model type 31081 4 feet long Fixture of philips surface mounted type .	EA	100.00			-
425	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. b) 1x 9 Watt LED wall light model type 31081 2feet long Fixture of philips surface mounted type .	EA	25.00			-

426	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. <b>surface mounted. LED philips lighting Sereno LED /SP 824 P LED 29S-5000 GR OD,</b>	EA	10.00		-
427	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required.e) Supply, Installation of philips bulk head light fittings of CAT no FXC 101 including 11 watt CFL lamp	EA	5.00		-
428	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Recessed mounted fitting with <b>1 x 12 Watt, LED Light</b> (Make:-Philips CAT No. DN192B-LED9S-6500 PSU WH) or equivalent.	EA	100.00		-
429	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:-Recessed mounted fitting with <b>1 x 12 Watt, LED Light</b> (Make:-Philips CAT No. DN193B-LED12S-6500 PSU WH) or equivalent.	EA	50.00		-
430	Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of Recessed mounted , minimum 600 lumens LED light fitting complete as required., (Philips : Green LED Ultima Circular DN091B LED6S-6500 PSU WH orEquivalent),,	EA	20.00		-
431	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:-Surface mounted circular fitting with <b>1 x 13 Watt LED Light</b> (Make:-Philips CAT No. BBS313 1xDLED-5000 WH) or equivalent.	EA	1.00		-
432	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Recessed mounted fitting with <b>4 x 14 Watt, LED Light</b> , direct-indirect lighting luminaire with special seamlessly integrated frame and full Opal Acrylic Diffuser (OAD) (Make:-Philips CAT No. 2' x 2' LED-RC380B LED-25-6500 PSE OD WH (40W)) or equivalent	EA	100.00		-
433	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Surface mounted fitting with <b>1 x 12 Watt, LED surface Light Square (CW)</b> (Make:-Philips Square panel LED Light)	EA	10.00		-
434	Supplying and Fixing of Flood light of philips Out door type BVP161 30 watt LED street light fittings of Philips including fixing clamp ,accessories like clamps, bolt, nut etc with testing and commissioning in all respect.	EA	10.00		-
435	Retrofitting of existing recessed type light fixtures T8/T5 2X36 /40 watt by LED lamps of 2 X 18 watts of philips complete with retrofit arrangement.	EA	20.00		-
436	Retrofitting of existing recessed type light fixtures T8/T5 1 X36 /40 watt by LED lamps of 1 X 18 watts of philips complete with retrofit arrangement.	EA	10.00		-
437	Supply & fixing of Philips / Wipro / 3M , warm white colour LED light strip 5 watt per meter ,complete with power supply adpoter etc.	M	10.00		-
438	Suspended type 8 ft, minimum 5400 lumen Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of suspended type 8 ft, minimum 5400 lumens LED light fitting with continuous interconnection feature, complete as required., (Regent Slash 28W or Equivalent),, Complet with suspention arrangement & clamps etc	EA	1.00		-
439	Recessed type 8 ft, minimum 5400 lumen Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of suspended type 8 ft, minimum 5400 lumens LED light fitting with continuous interconnection feature, complete as required., (Regent Slash 28W or Equivalent),, Complet with suspention arrangement & clamps etc	EA	1.00		-
440	Supplying and fixing of 250 mm dia exhaust fan with louvers and bird screen of PVC body in existing opening with 900 rpm (Approved make) of 250 mm dia .	EA	5.00		-
441	Supplying and fixing of exhaust fan with louvers and bird screen of PVC body in existing opening with 900 rpm (Approved make) b) 305 mm dia	EA	10.00		-
442	Supplying and fixing of 305 mm dia exhaust fan with louvers and bird screen of MS body in existing opening with 1400 rpm (Approved make) of 305 mm dia	EA	10.00		-
443	Heavy duty Exhaust fan 450 mm dia Supplying and fixing of size of exhaust fan with louvers and bird screen of Heavy duty of MS body in existing opening with 1400 rpm (Approved make) b) 450 mm dia(1400 rpm)	EA	5.00		-
444	Stainless Steel cover-Supplying and installation of following sizes 2.0 mm thick 4 way GI boxes with 2.0 mm thick Stainless Steel cover and fixing SS hardware in recess/ on surface including chasing the wall/floor complete as required. A) 200 x 200 x 50-75 mm	EA	25.00		-
445	Supply & fixing of 2 to 3 mm thick SS plates of size 300 X300 mm complete drilling the holes finishing & polishing the same	EA	5.00		-
446	Supply & laying of aluminium /GI floor race way of size 100X40 mm imbeded in floor including cutting of PCC & cover tge same with semi finish	M	10.00		-
447	Supply & laying of aluminium /GI floor race way of size 100X50 mm imbeded in floor including cutting of PCC & cover tge same with semi finish	M	10.00		-
448	Supplying and installing following size of perforated pre-painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required 150 mm width X 50 mm depth X 1.6 mm thickness.	M	10.00		-
449	Fabricating & installing perforated GI cable trays including horizontal and vertical bends, reducers, tees, cross members and other accessories as required including GI C Channe supports of 300 mm width x 50 mm depth x 2 mm thickness (/SLOTCO BEECO /RICO Steel)	M	10.00		-

450	Fabricating & installing perforated GI cable trays including horizontal and vertical bends, reducers, tees, cross members and other accessories as required including GI C Channe supports of 450 mm width x 50 mm depth x 2 mm thickness (SLOTCO BEECO /RICH Steel)	M	10.00		-
451	Providing and fixing of Fan Hook in existing Slab including cutting cement concrete and making good the same.	EA	10.00		-
452	Installation,fixing,testing,comissioning & assembling the street light 70 watt/120 Watt/ 150 watt/250/400 watt Normal OTR LED fittings complete with inter connection of blasst ,starter /iginator and lamp etc (Fittings with parts are supplied by TPDDL at site).	EA	25.00		-
453	Supply & fixing of 1-1/2 inch dia GI pipe medium class 750 mm to 1000 mm long, light fittings mounting brackets with 02 no mounting clams complete with nut bolt &washer etc	EA	50.00		-
454	Providing & installation (laying) of PVC insulated un armoured cable of 1.5 Sq mm 2 core including termination connection etc	M	200.00		-
455	Supplying and fixing Testing & commissioning with cable connection / termination of 200 mm x 160 mm x 98 mm (inner size) Pole Box made of polysterene thermoplastic having shock proof, bweather proof, rust proof, water proof (conforming to IP-65) enclosure having suitable size knock outs for cable entry in surface/recess of wall or on existing pole with 2 nos. of G.I. Clamps including 6 /10A SPMCB & 3 nos. Connectors suitable for 6/16/25 sq.mm. XLPE insulated cable for looping in and outwith branch out suitable for 2.5 sq.mm. PVC insulated wire including interconnections etc. as required.	EA	10.00		-
456	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required. 5/6 amps switch	EA	10.00		-
457	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.2 way 5/6 amps switch.	EA	10.00		-
458	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.15/16 amp switch	EA	10.00		-
459	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required. 3 pin 5/6 amp Socket.	EA	10.00		-
460	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.6 pin 15/16 amp socket outlet	EA	10.00		-
461	Supply and laying of 25 mm Dia PVC flexible conduits complete with dressing and fixing etc,	M	50.00		-
462	PVC Insulated copper Arm. Cable 1.5 SQ.MM. 2 Core Providing & Installation of PVC insulated Copper armored cable 1.5 sq. mm 2 core including termination connections etc. as required.	M	1000.00		-
463	Manual Call Box Providing & Fixing of manual call box in suitable enclosure with arrangements to raise the alarm when the glass is manually broken, complete as required	EA	25.00		-
464	Electronic Fire Hooter Providing & Fixing electronic fire hooters of 120dB sound level, suitable for mounting, complete as required.	EA	25.00		-
465	Blinking Type Smoke Detector Providing & Fixing of Blinking type Smoke Detector (Dual chamber ionisation type with mounting base, complete as required.	EA	150.00		-
466	Blinking Type Photoelectric Smoke Detector Providing & Fixing of Blinking type photo Electric type Smoke Detector with mounting base etc. complete as required.	EA	2.00		-
467	Blinking Type Fixed Temperature Heat Det Providing & Fixing of Blinking type Rate of Rise cum Fixed Temperature Heat Detector with mounting base etc. complete as required.	EA	25.00		-
468	Supplying, installing, testing and commissioning 4 zone Main Control Panel with zone indication. The panel shall include solid state circuits, battery charger, batteries etc. and fire/fault/test positions selector switches, zone isolation facility etc. complete as required.	EA	10.00		-
469	Supplying, installing, testing and commissioning 2 zone Main Control Panel with zone indication. The panel shall include solid state circuits, battery charger, batteries etc. and fire/fault/test positions selector switches, zone isolation facility etc. complete as required.	EA	10.00		-
470	Fire Detection Panel 3-6 Zones Providing, Fixing and commissioning the new fire detection panel of similar specification complete in all respect for: 3 to 6 Zone Micro-processor based fire alarm panel with made of 16 SWG CRCA Sheet with hinged front cover and acrylic sheet in the front with locking arrangement and inbuilt battery Box, comprising of Audio/visual alarm Indication of fire & fault etc, with Control panel consisting 8 bit system CPU 11.0592 MHz WDT processor, 16 X 4 line LCD display, time and date on LCD, complete with 100 event data logger with date and time stamp, optional serial direct thermal dot line printer connectivity with 48mm print width, indications for fire, fault, mains power and battery. The panel shall also contain annunciation window type indicators for fire and fault. Panel should support a) RS 485 serial communication mode for active repeater b) TCP/IP converters for centralized monitoring of the panel from any remote PC c) ATX key board support for field programming d) PA system connectivity for announcement and alerting. The panel shall contain built-in battery charger and battery space for 2 X 12V, 7Ah maintenance free battery (Exide/ Panasonic) for 6 hrs back up in normal case and 30 min back up in case of alarm. (Approved Make: Honeywell/Agni Suraksha(Dataatakex) / Safeway /System Sensor)	EA	1.00		-
471	Please consider as following : Response indicator with twin transparent LED that shall glow red in case of fire.	EA	30.00		-
472	MS galvanized boxes - used as the base of the detector installed at the ceiling	EA	40.00		-
473	Supply & fixing of MINILEC make single phase suitable up to 32 Amp auto transfer switch complete with auto / adjustable timer for auto ON/OFF one by one each AC units as per timer setting , suitable for server rooms AC units	EA	5.00		-
	<b>Total Excl. GST</b>				-
	<b>GST @18%</b>				-
	<b>Total Incl. GST</b>				-

Work is to be carried out in the areas, locations covered under various Divisions, Sub - Divisions, Sections of the WESCO Utility Circle as mentioned in the attached Annexure II. Vendors need to visit these areas / locations to understand the scope of work and get acquainted with the areas , local conditions, availability of resources etc. where works are required to be executed.

The rates finalised for the Circle shall be applicable to all the works covered under Divisions, Sub - Divisions, Sections of the Circle.

**General Civil Works in various areas under Kalahandi Circle of WESCO Utility**

Sr. No.	Brief Item description	Unit	Qty	Rate	Amount
1	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	500		-
2	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, dewatering and depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	500		-
3	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>1.51 to 3.0</b> mtrs	M3	400		-
4	Excavation in all types of <b>ordinary soils / hard murrum</b> including all necessary permissions, dewatering and depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>1.51 to 3.0</b> mtrs	M3	400		-
5	Providing cartage service and transporting, excavated soil, debris, bricks, concrete, scrapwood including loading and unloading and disposing off to dumping sites approved by statutory bodies outside premises including submission of relevant documents, as applicable outside the station premises. (Note. Payable measurement shall be dismantelled qty. (Voids to be deducted as applicable whenever heap / truck mesurements are taken))	M3	400		-
6	Excavation in all types of <b>hard rock with mechanical equipment rock breaker</b> including all necessary permissions, depositing / stacking of all materials, removal of vegetation, backfilling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for backfilling or stacking or spreading or removal of surplus excavated earth within a basic lead of 100 mtrs as directed for a depth from <b>0.0 to 1.5</b> mtrs	M3	25		-
7	Providing close timber shoring consisting of 25 mm thk. walling and struts of size 100x100 mm or any other suitable alternative to sides of excavation / trenches / pits etc. wherever necessary and as directed for depth from 0 to 1.50 Mtrs	M2	200		-
8	Providing close timber shoring consisting of 25 mm thk. walling and struts of size 100x100 mm or any other suitable alternative to sides of excavation / trenches / pits etc. wherever necessary and as directed for depth from 1.51 to 3.00 Mtrs	M2	200		-
9	Backfilling trenches in 225 mm thick layers consolidated to 150mm.with murrum / excavated material (available at site upto 100 mtr.) including compaction of backfill by watering and tamping with approved hand or mechanical tampers.	M3	105		-
10	<b>Backfilling</b> trenches in 225 mm thick layers consolidated to 150mm <b>with murrum procured externally</b> including compaction of backfill by watering and tamping with approved hand or mechanical tampers. (mode of measurement will be Pre & Post work levels.Voids to be deducted at 20% if on truck measurement))	M3	35		-
11	Providing and laying 225 or 300 mm thick <b>dry rubble soling</b> with approved quality stones including filling gaps with small chips ramming with hand rammer etc. complete.	M3	400		-
12	Providing and laying 225 or 300 mm thick <b>dry rubble soling</b> with approved quality stones including filling gaps with small chips ramming with hand rammer etc. complete.(Rubble will be supplied by Tata's free of cost / <b>using available rubble at site</b> )	M3	35		-
13	Providing and spreading <b>metal No.3 or 4</b> in trenches or for pathways (including all materials) in layers for all thicknesses from 75 mm thick onwards and consolidating the same with hand rammer, etc. complete.	M3	28		-
14	Spreading and laying <b>metal No.3 or 4</b> in trenches or for pathways (including all materials) in layers for all thicknesses from 75 mm thick onwards and consolidating the same with hand rammer, etc. complete by <b>using metal available at site</b> .	M3	35		-
15	<b>Demolishing Brick Wall</b> (Including Plaster) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	35		-
16	<b>Demolishing Plain Cement Concrete (PCC)</b> (Including Plaster, flooring, mortar bedding) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	35		-
18	<b>Demolishing Reinforced Cement Concrete (RCC)</b> (Including Plaster, flooring, mortar bedding,Cutting Reinforcement) of various thickness and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M3	30		-
19	<b>Demolishing / removing Plaster of various thickness</b> and transporting debris within companies premises or as directed including providing scaffolding, ladders, tools, tackles and pneumatic equipment as directed	M2	150		-
20	<b>Demolishing Asphalt Surface of various thickness</b> and transporting debris within companies premises or as directed including providing tools, tackles and pneumatic equipment as directed	M3	30		-

21	<b>Demolishing Rubble Soling / Pitching upto 300 mm thickness</b> and transporting debris within companies premises or as directed including providing tools, tackles and pneumatic equipment as directed	M3	7		-
22	<b>Dismantling</b> and neatly stacking <b>structural steel</b> work of roof trusses, purlins, beams, columns, chequered plate floorings, treads, risers, stringers, bracings, runners, fencing posts etc. at all heights including providing all accesories complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include returning the dismantled members to owner's stores at division etc. complete as directed.	MT	35		-
23	<b>Dismanting</b> and stacking including removal of wooden or steel frame work,angle supports etc. complete as directed for <b>Doors / Windows / Ventilators.</b>	M2	35		-
24	<b>Dismantling</b> and removal of <b>chainlink fencing</b> including removal of angle posts & barbed wire and returning the dismantled members to owner's stores at division etc. complete as directed. including scaffolding as per safety standards etc. complete as directed.(Rate shall inclusive of providing necessary tools tackles , cutting set, welding set wherever required.)	M2	140		-
25	<b>Dismantling</b> and stacking <b>AC or CGI sheets</b> on roofs or partitions excluding removal of wooden or steel frame work, angle supports etc. complete. (Rate including returning AC sheets in usable condition to store) for AC or CGI Sheet in usable condition	M2	70		-
26	<b>Providing</b> all the materials including screws, bolts and fixing corrugated <b>A.C. Sheet, GI Sheet, Galvalume sheet</b> on partition, roof or any other place including cutting, screwing etc. complete at all elevations (Only Sheets shall be supplied by TATA's free of cost)	M2	300		-
27	Carefully breaking and removing old tiles in floor / dado / skirting including mortar bedding / plastering and carting away debris and stacking tiles pieces within Owner's premises as directed by Engineer. (Mosaic / Plain Cement Tiles, Glazed Tiles & Nonskid ceramic tiles etc.)	M2	100		-
28	Dismanting and stacking including removal of wooden or steel frame work,angle supports etc. complete as directed for <b>Doors / Windows / Ventilators.</b>	M2	500		-
29	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Raft / footings</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	50		-
30	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Pedestals, columns, walls</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	20		-
31	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M20</b> with required slump for <b>Beams / slabs</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	10		-
32	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Raft / footings</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	50		-
33	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Pedestals, columns, walls</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER	M3	20		-
34	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Beams / slabs</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER .	M3	10		-

35	Providing and placing to correct line and level, in position, machine mixed reinforced cement concrete <b>RCC of grade M25</b> with required slump for <b>Pardis / Fins</b> at all levels including vibrating, curing, providing construction joints, leaving cutouts/ pockets, placing of inserts/ embedments, dewatering wherever necessary etc., complete all as per drawing , including cost of providing form work for all shapes (including steel plate/ply wood shuttering, strutting, steel scaffolding etc.), but excluding the cost of providing reinforcement, inserts / embedments, and as directed by the ENGINEER.	M3	3		-
36	Providing all the materials laying Indian Patent Stone flooring in M15 grade concrete, including finishing the surface & curing etc. complete as directed ... 37 mm thk with Aluminium strips in panels of 2 x 2 M (Cement Consumption 0.36 Bag/M2)	M2	35		-
37	Providing all the materials laying Indian Patent Stone flooring in M15 grade concrete, including finishing the surface & curing etc. complete as directed ... 50 mm thk with Aluminium strips in panels of 2 x 2 M(Cement Consumption 0.48 Bag/M2)	M2	35		-
38	Supplying, Providing and laying in position <b>plain cement concrete of grade M10 machine mixed, vibrated and placed to correct line and level in levelling course/fill under or around foundations pits, slabs on grade, sumps, soak pits</b> , etc. at any depth with 30 mm down graded coarse aggregates including curing, compacting, de-watering wherever necessary, providing marine plywood shuttering form work wherever required etc. complete. (Min cement content 210Kg/m3)	M3	20		-
39	Supplying, Providing and laying in position <b>plain cement concrete of grade M15 machine mixed, vibrated and placed to correct line and level in levelling course/fill under or around foundations pits, slabs on grade, sumps, soak pits</b> , etc. at any depth with 30 mm down graded coarse aggregates including curing, compacting, de-watering wherever necessary, providing marine plywood shuttering form work wherever required etc. complete. (Min cement content 300 Kg/m3)	M3	30		-
40	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 12.5 mm nominal size).	M3	8		-
41	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	M2	200		-
42	Providing and fixing precast reinforced concrete cable trench covers, drain covers, fencing post, etc of class M25 concrete w/c 0.5 (max) leaving cutouts/ pockets, placing of inserts/ embedments, etc., complete all as per drawing including shuttering, vibrating, machine mixing, providing lifting arrangements, placing inserts curing handling, transporting, etc. complete but excluding the cost of providing reinforcement, inserts / embedments,with 30 mm downgraded aggregates. (Cement consumption 7.9 Bag/M3)	M3	4		-
43	Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding <b>reinforcement steel</b> for all types of RCC / Precast work irrespective of locations & levels all as per drawings including steel scaffolding, handling and transporting from site stores, complete as directed by using High yield strength deformed bars conforming to IS 1786 - <b>HYSD Bars</b>	TO	7		-
44	Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding reinforcement steel for all types of RCC work irrespective of locations & levels all as per drawings including handling and transporting from site stores complete as directed y using Mild Steel bars conforming to IS 432 - M S Bars / rods	MT	2		-
45	Providing all material and constructing brick masonry 230mm. thick and above in cement mortar (1:5) using approved quality, class 50 conforming to IS:3102 table moulded bricks, including leaving inserts / pockets, steel scaffolding, curing, raking joints, etc.	M3	300		-
46	Providing all material and constructing brick masonry 115 mm. thick and in cement mortar (1:4) using approved quality, class 50 conforming to IS:3102 table moulded bricks, including leaving inserts / pockets, steel scaffolding, curing, raking joints, etc. Any reinforcement required to be placed shall be paid separately in reinforcement item of this BOQ.	M2	200		-
47	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand)	M3	250.00		-
48	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	M3	50.00		-
49	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	M2	200.00		-
50	Providing all materials and carrying out <b>sand faced plaster 25 mm thick in two layers</b> (first layer of 16 to 18 mm and second layer of 6 to 8 mm thickness ) and plastering external surfaces of concrete and brick work such as walls, columns, beams etc. with 1:4 cement mortar, including providing & erecting steel scaffolding, hacking of concrete surfaces, curing including bands, drip moulds, grooves, etc. complete with 2% Accoproof or approved waterproofing compound	M2	500		-
51	Providing all materials and carrying out <b>sand faced plaster 18 mm thick in sigle layer</b> and plastering external surfaces of concrete and brick work such as walls, columns, beams etc. with 1:4 cement mortar, including providing & erecting steel scaffolding, hacking of concrete surfaces, curing including bands, drip moulds, grooves, etc. complete with 2% Accoproof or approved waterproofing compound	M2			-
52	Providing and <b>plastering internal surfaces</b> of concrete and brick work such as walls, ceilings, columns, beams, etc. with cement mortar 1:4 mix <b>finish smooth with 1:1 proportion cement &amp; slaked lime neeru / instant neeru</b> , including providing and erecting steel scaffolding, hacking concrete surface, providing bands, grooves drip moulds, curing, etc - <b>12 mm thk</b>	M2	105		-

53	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface to receive exterior quality paint , Applying a coat of approved Primer and Two Coats of Paint. Including necessary scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Exterior quality Plastic Emulsion paint</b>	M2	150		-
54	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface plain by applying putty, Applying a coat of approved Primer and Two Coats of Paint. Including necessary steel scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Synthetic Enamel Paint</b>	M2	150		-
55	Providing all materials, tools tackles and labour, preparing the surface by scrapping / sand papering to remove loose scales, making the surface plain by applying putty, Applying a coat of approved Primer and Two Coats of Paint. Including necessary steel scaffolding / staging etc. complete as directed. Paint shall be of First Quality Manufactured by Asian / Burger / Shalimar paints <b>Internal quality Plastic Emulsion paint</b>	M2	140		-
56	Providing all materials, tools tackles and labour, preparing the surface by scrapping / wire brushing to remove loose scales, Applying 3 coats of <b>White Wash</b> of approved Shade & Manufacturer, including necessary steel scaffolding / staging etc. complete as directed.	M2	140		-
57	Providing all materials roughening the surface and carrying out <b>waterproofing treatment to roof with brickbat coba</b> with well burnt half to three quarter bricks laid on edge diagonally, grouted with 1:3 CM with water proofing compound 5% by weight of cement of average thickness 125 mm including 50 mm thk IPS M15 grade including surfaces up to 300 mm above the finished surface on side walls( Measurements shall be based on net plan area only). Work to be guarantted for minimum 7 years	M2	70		-
58	Providing and constructing <b>112mm thick brick masonry Partition Walls in CM 1:4</b> including, scaffolding, curing, racking of joints for plastering or pointing, including transomes and mullions complete at all heights as per specification and as directed. (Reinforcement will be measured and paid for separately.)	M2	7		-
59	Providing and constructing <b>uncoursed rubble masonry in CM 1:5</b> including leaving inserts / pockets, steel scaffolding, curing, raking out joints for plastering / pointing complete for 0 to 4.00 Mtrs. High (Cement consumption 2.26 bag/M3)	M3	35		-
60	Providing all your tools and tackles and rendering services of Electrician / Carpenter / Plumber along with helper and consumables for minor repairs i/c providing washers, thread, m seal, screws, nails, fevicol, fuse wire, insulation tape and T & P as per requirement at site complete as per requirement of Owner.(The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	Day	90.00		-
61	Providing and fixing GI chicken wire mesh on concrete and masonry joints using nails, T&P etc. as per direction of the EIC complete.	M2	50.00		-
62	Making round opening in wall for exhaust fan upto 450 mm including making good the wall, jamps with cement mortar 1:4 (1 cement : 4 coarse sand) and finishing complete.	EA	10.00		-
63	Providing all the materials and carrying out <b>raised or flush cement pointing</b> in 1:3 cement mortar including providing and erecting steel scaffolding, curing, etc. complete <b>to rubble masonry / rubble pitching</b>	M2	35		-
64	Providing all the materials and equipments, fixing <b>marble mosaic tiles</b> of approved make such as BHARAT / NITCO / SIMPLEX or equivalent in floors and including cleaning the base laying 25 mm thick bedding mortar of one part of cement two parts of lime and six parts of sand, floating tiles in cement slurry at 5 Kg / M2, polishing with machine including washing with oxalic acid as directed, Neutral Shade tiles floated in Grey Cement.	M2	30		-
65	Providing and fixing <b>25mm thick Kotah Stone flooring</b> (machine cut and machine polished) with necessary cement mortar bedding, floating with matching colour cement, curing, machine polishing, cleaning etc. complete.	M2	25		-
66	Providing and fixing <b>35mm thick machine cut machine polished black kaddappa stone</b> of any sizes for counter / cooking platform with necessary cement mortar bedding and floating with matching colour cement, curing, polishing, cleaning etc or cutting grooves in walls & redoing in CM (1:3) complete.	M2	20		-
67	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels Granite of any colour and shade. Area of slab over 0.50 sqm.	M2	20		-
68	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels. a) Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble. Area of slab over 0.50 sqm.	M2	20		-
69	Providing half round edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Marble work	M	10		-
70	Providing half round edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work	M	10		-

71	Providing and fixing first quality <b>non-skid ceramic tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:5 bedding of average thickness 40mm , floated with matching cement etc. complete of size (300mm X 300mm). Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	30		-
72	Providing and fixing first quality ceramic <b>glazed tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:5 bedding of average thickness 40mm , floated with matching cement etc. complete of all sizes. Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	50		-
73	Providing and fixing first quality <b>Coloured glazed tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor & dado, laid to line and level on cement mortar 1:4 bedding upto 40mm , floated with matching cement etc. complete of all sizes upto 300 x 600. Rate shall be inclusive of one coat of rough plaster to receive dado tiles.	M2	20		-
74	Providing and fixing first quality ceramic <b>vitrified tiles</b> (1st Quality) of Kajaria / Nitco or equivalent tiles approved by owner to match existing shade in floor laid to line and level on cement mortar 1:4 bedding upto 75mm , floated with matching cement etc. complete of size 600 x 600.	M2	50		-
75	Rubbing and grinding of existing terrazo/mosaic flooring i/c polishing to the desired finish complete at all floor levels	M2	500.00		-
76	<b>Fabricating and erecting structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts, and washers and applying one coat of Shalimar or any other approved make red oxide (primer) paint to all the exposed surfaces of steel. <b>Only structural Steel to be provided by Owner at the nearest store</b>	TO	80		-
77	<b>Providing steel and supplying all material, fabricating and erecting structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as per the approved drawing or as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts, and washers and applying one coat of Shalimar or any other approved make red oxide (primer) paint to all the exposed surfaces of steel. Structural steel section shall be of primary manufacturer and confirm to IS2062 requirements	TO	80		-
78	<b>Providing steel and supplying all material, fabricating and erecting galvanized structural steel work</b> at all heights including steel scaffolding for roof trusses, purlins, beams, columns, chequered plate flooring, treads, risers, stringers, bracings, runners etc. at all heights including welding and gas cutting, drilling of holes etc. complete as per the approved drawing or as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of GI bolts, and nuts, and washers. Structural steel section shall be of primary manufacturer and confirm to IS2062 requirements & GI coating shall confirm to IS2629 (1985) & 4759 (1996) .#contractor shall submit the test certificate of GI coating thickness. Thickness should be 80 Microns HOT Dip.	TO	10		-
79	Providing steel and Supplying all material for Fabricating and erecting all types of steel work including welding, gas cutting, grinding, drilling of holes, or other lifting arrangements etc. Contractor shall use his own welding set, gas cutting set, gas, approved quality of welding electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of MS bolts, and nuts , and washers and applying coats of Zinc primer to all the exposed surfaces of steel. <b>For MS Chequered plates.</b>	MT	15		-
80	Providing, fabricating and erecting <b>6 / 8 / 10 mm thick aluminum Chequered plate</b> for platform, flooring, treads, risers, stringers, bracings, runners etc. at all heights including straightening, cutting, grinding, drilling of holes or other lifting arrangements, etc. complete as directed. Contractor shall use his own welding set, gas cutting set, gas, electrodes, drill machine and other accessories, required for carrying out the entire work. The rate shall include supply and fixing of bolts, and nuts' washers and other fixtures etc. complete.	MT	5		-

81	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete. 75 mm overall thickness partition with 12.5 mm thick double skin fire rated Glass Reinforced Gypsum (GRG) board conforming to IS: 2095: (part 3) : 1996 (Board with BIS certification marks)	M2	20.00		-
82	Providing all your equipment, tools and tackles and rendering services including consumables for welding of various steel works viz doors, windows, gates, partitions,grills etc., including hiring charges of welding machine with welder & helper, carriage etc complete in all respect. (The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	day	30		-
83	Providing and fixing powder coated aluminum Partition part panelled and partly glass 8mm thick Main frame shall be made out of Hollow extruded sections of size 100mm x 75mm x 14 gauge.	M2	35		-
84	Providing and fixing powder coated aluminum doors part panelled and part louvered or glass 8mm thick ( for all sizes ) Main frame shall be made out of Hollow extruded sections of size 100mm x 75mm x 14 gauge. The louvers shall be made of 5.5mm thick wire glass slided inside suitable aluminum 14 gauges channels fixed to main frame by 2 nos. 4 mm aluminum rivets fixed at 45 deg etc. complete.	M2	25		-
85	Making pockets in Brick Masonry / PCC / RCC at all levels on the vertical and horizontal faces with necessary staging as required to fix anchor bolts / inserts (Supplied by Tata free of cost) and Grouting the pockets with 1:1 cement mortar after placing the bolts / inserts and finishing the surface either smooth or sand faced as required upto 200 mm square & depth upto 300mm	NO	20		-
86	Providing and fixing CI rain water pipes conforming to ISI with bends clamps etc., as directed.				-
87	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 100mm Dia.	M	35		-
88	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 150mm Dia.	M	35		-
89	Providing & laying C.I. pipe line to the correct grade and level including providing all materials, fittings, brackets and clamps on vertical or horizontal surface including jointing socket joints,with lead wool as directed etc. complete for 200mm Dia.	M	35		-
90	Providing all the materials & fixing corrugated GI Sheet 16 guage including GI screws, GI bolts, bitumen washers on partition, roof or any other place including cutting, screwing etc. complete at all level including scaffolding.	M2	250		-
91	Providing , stretching and fixing chain link fencing 2" square and of gauge 10 (bare metal thickness) on angle posts with heavy duty GI split pins etc. in position complete as directed at all Heights including steel scaffolding.	M2	3000		-
92	Stretching and fixing chain link fencing 2" square and of gauge 10 (bare metal thickness) on angle posts with heavy duty GI split pins etc. in position complete as directed at all Heights including steel scaffolding. (Only Chain link shall be supplied by the Owner).	M2	200		-
93	Providing and fixing reinforced barbed wire tape (RBT) (2.6mm) thick single wire along the boudary wall / fencing on angle iron post with all necessary fitting such as welding of nuts, bolts, clips, split pins, TSP & such etc.complete	M	2000		-
94	Providing and fixing G I barbed wire of 10 guage along the boudary wall / fencing on angle iron post with all necessary fitting such as welding of nuts, bolts, clips, split pins, manpower etc.complete	M	1000		-
95	Providing and fixing concertina coil of 610 mm dia., 80 Nos. of circles, 200 Nos. of clips, hot dip galvanized. The wire shall be of 12 SWG tensile wire, covering 10 RM with one coil, each RM will have 8 Nos. of circles, including labour, fixing in position on existing V shaped angles including 2 nos. of guard wires and painting with 2 coats of Bus green paint complete at all heights including scaffolding.	M	500		-
96	Providing & fixing Broken glass pieces over coping on compound walls including providing ladders, scaffolding etc. complete as directed Ave. width 300 MM	M2	500		-
97	Hiring JCB with operator & helper including fuel and carrying out the work as directed by Owner's site manager.	shift	30		-
98	Hiring Poclain with operator & helper including fuel and carrying out the work as directed by Owner's site manager.	Shift	10		-
99	Providing ,Cutting and fixing HDPE pipe inserts 140 mm dia	M	35		-
100	Providing ,Cutting and fixing HDPE pipe inserts 200 mm dia	M	35		-

101	Supplying, fabricating and erecting Tubular Hand railing of 32 mm dia. NB medium class, SS pipes 304 mat finish /brush steel finish consisting of one SS rail and connecting with wall with all necessary SS bends, SS tee joints, SS fixtures, SS fittings, anchor bolts 6 mm dia and embedded in wall, etc. The assembly should be sturdy and with smooth surfaces at joints/ junctions. All SS sections, pipes etc. to be supported with documents for the quality and only SS sections and accessories shall be paid under this item	MT	1		-
102	S S Railing Supplying, fabricating and erecting Tubular Hand railing of 32 mm dia. NB medium class, SS pipes 304 mat finish/brush steel finish consisting of double ss rail with top ss rail 1 Mtr above floor level, middle rail at center and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary ss bends, ss tee joints, ss fixtures, ss fittings, anchor bolts including 6mm thick and embedded in ground, 75mm high toe guard at bottom etc.	M	100		-
103	Supplying, fabricating and erecting C class GI Tubular Hand railing of 32 mm dia. NB light class, consisting of double GI rail with top GI rail 1 Mtr above floor level and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary ss bends, GI tee joints, GI fixtures, GI fittings, anchor bolts including 6mm thick and embedded in ground, 75mm high toe guard at bottom etc. including connecting one coat of primer and two finish coats of synthetic enamel as directed. Note: Material to be provided by the contractor."	M	200		-
104	Supplying, fabricating & erecting Tubular Handrailing of 32 mm dia. N B, medium class, M S Pipes conforming to IS - 1239 of flush weld constructions & consisting of double rail with top rail 1 Mtr above floor level , middle rail at center and pipe post including its own connecting plate at bottom spaced at not more than 2 Mtrs with all necessary bends, tee joints, fixtures fittings, 75mm high toe guard 6mm thick at bottom, anchor bolts etc. including 1 shop coat of Shalimar or approved make red oxide primer paint conforming to IS 2074 and second coat of primer after completion of erection followed by two coats of finishing paints of approved make, colours and confirming to IS 2239 etc. complete as directed.	m	100		-
105	Providing and fixing powder coated MS wire mesh( 22 gauge) with aluminum frame etc. complete	M2	18		-
106	Providing and fixing powder coated SS wire mesh with aluminum frame etc. complete	M2	18		-
107	Providing and fixing powder coated GI mesh( 22 gauge) with aluminum frame etc. complete	M2	18		-
108	Providing & fixing Aluminium louvered POWDER COATED windows(fixed) conforming IS:1868. Main frame shall be made out of Hollow extruded sections of size 100 mm x 75 mm x 14 gauge. The louvers shall be made of 5.5 mm thick wired glass slid inside suitable aluminium 14 gauge channels fixed to main frame by 2 nos. 4 mm aluminium rivets fixed at 45 Deg.etc. complete.	M2	18		-
109	Providing, Fabricating and erecting MS gates consisting of MS angles framework (internal & external) using ISA 65x65x6 or 75x75x6 with 6mm to 8mm thk. MS joining plates, including chain-link stretched (8 gauge) tack welded over the framework with necessary hinges, locking arrangement including applying synthetic enamel paint of approved make over one coat of primer. Contractor shall use his own welding set, gas cutting set, gas, electrodes and other accessories required to complete the entire job. Rate is inclusive of all materials to be procured by the contractor.	M2	30		-
110	Providing, Fabricating and erecting MS gates consisting of MS hollow rectangular or square box sections with 6mm to 8mm thk. MS joining plates, including welding of sections as per design approved by the Owner. Fabricating the framework with necessary hinges, locking arrangement including applying synthetic enamel paint of approved make over one coat of primer. Contractor shall use his own welding set, gas cutting set, gas, electrodes and other accessories, steel scaffolding required to complete the entire job. All hollow box steel section shall be of primary manufacturer and confirm to IS 4923 requirements	MT	2		-
111	Steel work in built up tubular trusses including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete. Hot finished welded type tubes.	KG	1000		-
112	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 120 mm	EA	100		-
113	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 160 mm	EA	100		-
114	Dismantling / cutting and stacking Rolling Shutters with / without Wicket Gates including removal of angle supports etc, as directed.	M2	20		-
115	Supplying and fixing mechanical gear type rolling shutters, manually operated by means of winding handle and the shutter made out of 18 gauge x 3" (1.10 mm to 1.25 mm) mild steel laths of convex corrugation, complete with build up 4" x 1" side guides, built up bottom rails with angle iron at bottom and flat iron at top, heavy brackets, extra strong door, suspension shaft made out of new pipes leaded with high tension steel springs of best Indian spring steel wire, locking arrangements handles, painted with one coat of primer paint complete in best workmanship with top cover 3 Nos. bearing and including loading, unloading and transportation at our site.	M2	100		-
116	Supplying and fixinghand operated type rolling shutters, manually operated by means of winding handle and the shutter made out of 18 gauge x 3" (1.10 mm to 1.25 mm) mild steel laths of convex corrugation, complete with build up 4" x 1" side guides, built up bottom rails with angle iron at bottom and flat iron at top, heavy brackets, extra strong door, suspension shaft made out of new pipes leaded with high tension steel springs of best Indian spring steel wire, locking arrangements handles, painted with one coat of primer paint complete in best workmanship with top cover 3 Nos. bearing and including loading, unloading and transportation at our site.	M2	100		-
117	Providing all the materials and fixing Aluminum coated Name board of size 2.5mx1.2m (approx.) with stainless steel letters of 10" x 3" size with company's logo.	NO	6		-

118	Supplying & fixing in position anchor bolts with washers & nuts of required shape & size 6mm to 30mm dia. With necessary thread length including fixing templates etc. (Templates will not be paid for).	kg	200		-
119	Supplying and placing in position Mechanical Anchor fasteners 16 mm dia, 140 mm long including drilling the holes .(HST,HILTI make).	NO	140		-
120	Supplying and placing in position Mechanical Anchor fasteners 12mm dia. 140mm including drilling the holes .(HST,HILTI make).	NO	70		-
121	Providing and fixing single or double shuttered fully panelled POWDER COATED doors conforming to IS:1868. Main frame shall be made out of aluminum tubes of size 100mm x 45mm x 14 gauge. The shutters shall consist of 45mm x 45mm x 14 gauge top rail and styles, 95mm x 45mm x 14 gauge bottom rail and panelled with Marine plywood sandwiched between 18 gauge Aluminum sheet on both sides including necessary locking arrangement, handles on one or both the shutters, weather strip, floor springs for one or both shutters, tower bolts for one shutter etc. with pivots for each shutter including fixing necessary "PUSH PULL" signs, with rubber woolen felt sealing etc. complete. Aluminium sections to be of Jindal / Indal make	M2	35		-
122	Providing and fixing fully glazed sliding POWDER COATED aluminum windows. Outer frame shall be of size 100 mm x 45 mm x (14 gauge) anodized section of min. weight 6 Kg / 12' length. The 3 track Box Section (20 mm Series) Indal / Jindal shall consist of a) Bottom rail size 90 mm x 45 mm (14 gauge) of min. weight 5.5 Kg / 12' length. b) Sides and top rail 90 mm x 32 mm (15 gauge) of min. weight 3 Kg / 12' length. Glass shall be 6mm thick. rubber woolen felt sealing etc. complete.	M2	35		-
123	Providing and fixing CP jet spray size 12mm dia. of approved make with ISI mark	NO	20		-
124	Providing and fixing Basin mirror of size 600mmx600mm of approved make and colour including all material, tools, tackles complete	NO	20		-
125	Providing and fixing 100 x 80mm CI deep seal Nahani Trap of insect proof type with CP heavy grating and frame	EA	15		-
126	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 12mm Dia.	M	70		-
127	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 19mm Dia.	M	70		-
128	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 25mm Dia.	M	70		-
129	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 38mm Dia.	M	70		-
130	Providing & replacing damaged C class G.I. pipe to correct line and level including providing all materials such as C class pipes and required fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete for 50mm Dia.	M	70		-
131	Providing and fixing 100 x 80mm PVC deep seal Nahani Trap of insect proof type with PVC heavy grating and frame as directed	No	7		-
132	Providing and fixing water closet squatting pan (Indian type W.C. pan ) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required : White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests (HINDUSTAN/Parryware MAKE)	EA	7		-
133	Providing and fixing white vitreous china pedestal type European water closet (Hindware make:Constellation set white) with seat & lid,10 litres flushing cistern & manually controlled device conforming to the IS-7231 with all fittings & fixtures complete including cutting and making good the walls and floors wherever required.WC pan with ISI marked white sloid plastic seat & lid heavy duty (HINDUSTAN/Parryware MAKE)	EA	50		-
134	Providing lip type urinal and flushing valve and bottle trap, lead and GI pipe connections overflow outlet pipes with mosquito proof cover including providing all the materials. etc. complete. (HINDUSTAN/Parryware MAKE)	EA	70		-
135	Providing and fixing stone ware gully traps of 9"x9" size as directed.	EA	70		-
136	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 12mm Dia.	EA	70		-
137	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 19mm Dia.	EA	70		-
138	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 25mm Dia.	EA	70		-
139	Providing and fixing brass connecting rod with PVC ball cock etc. and of 1st quality and of ISI approved make Ball cocks 50mm Dia.	EA	70		-
140	Providing & Laying salt glazed stoneware pipes including providing all the materials and cement jointing but excluding excavation and backfilling including 50mm thk.M100 bedding below joints for 150mm Dia.	Rm	70		-
141	Removing, providing & replacing the broken manhole covers heavy duty CI, ISI marked with frame including finishing the top masonry with cement mortar as directed 225mm X 300mm Manhole covers should be of munal corporation approved.	EA	70		-
142	Removing, providing & replacing the broken manhole covers heavy duty CI, ISI marked with frame including finishing the top masonry with cement mortar as directed 900mm X 600mm - Manhole covers should be of munal corporation approved	NO	70		-
143	Removing , providing & fixing white glazed wash basin flatback confirming to IS 2556 (Part IV) of approved make including providing wash basin, C.I brackets, fixed to the wall with rawl plug bolts & screws and painted in two coats of white zinc paint over a coat of red oxide primer,with 15mm C.P. pillar tap as per IS 1795 (1 No.) of approved make, plug & C.P chain, 50mm dia. mosquito proof gratings, 32mm dia. C.P. waste pipe, brass stop cock as per IS 781 of bottle trap with C.P pipe pieces upto wall or floor level plus 40mm lead, waste pipe embedded floor from 32mm CP waste extension pipe to the CI waste shaft on the outside wall, complete with brass union and plumbers wiped soldered joints as directed with necessary cleaning eyes including cutting holes and chasses in the wall and making good the same in CM (1:4) etc. complete as directed. (Hindustan/ Parryware make .) Size 580mm X 450mm	EA	70		-

144	Providing and fixing 31 mm dia heavy duty CP Bottle trap matching with the existing if any	EA	70		-
145	Providing and fixing heavy dutyC P Flush valve for flat back Urinals complete matching with existing if any.	EA	70		-
146	Providing and fixing ceramic white sink including all connections, brackets,wast cupling, 32mm PVC pipe complete as directed. (Hindustan or Cera) Size 0.45m X 0.6m	EA	70		-
147	Supplying and fixing Stainless steel sink made out of best quality Stainless steel sheet of 16 guage conforming to IS 5522 having 1 1/4 " hole for drain pipe at centre of bottom plate with Stainless steel basket stainer 1 1/4 ", brass waist coupling , 1 1/2 " moulding all around and as directed for sizes 0.610 M x 0.460 M. Nirali or equivalent approved make.	EA	70		-
148	Providing and fixing PVC seat cover to European WC matching with the existing if any	EA	70		-
149	Providing and fixing heavy duty CP pillar cock - Pressmatic type to wash basin size 15mm of approved ISI make as directed.	No	70		-
150	Providing and fixing heavy duty CP Jali for nahni trap as directed of size 100mm dia.	EA	70		-
151	Providing and fixing 100mm dia CP shower with 300mm long arm .	EA	70		-
152	Providing and fixing heavy duty CP concealed <b>bib cock</b> size 12mm dia. of approved make with ISI mark as directed.	EA	70		-
153	Providing and fixing heavy duty CP concealed <b>Angle cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	70		-
154	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 12mm dia. of approved make with ISI mark as directed.	EA	70		-
155	Providing and fixing heavy duty PVC soap dispenser of standard size .	EA	70		-
156	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 20mm dia. of approved make with ISI mark as directed.	No	70		-
157	Providing and fixing heavy duty CP concealed <b>stop cock</b> size 50mm dia. of approved make with ISI mark as directed.	No	70		-
158	Removing / dismantling old corroded GI pipe line size 12mm to 50mm dia. Work includes transportation to company store etc.	M	84		-
159	Providing all materials, services, tools, tackles, equipment, transport etc. for carrying out misc. plumbing repair works and Replacing float valve of flush tank size 12.5 mm dia.	EA	20		-
160	Providing and installation heavy duty jet spray including PVC Connector of approved make with ISI mark as directed.	EA	20		-
161	Providing and fixing heavy duty PVC high level / low level flush tank of standard size including all necessary fitting and fixtures of approved make with ISI mark as directed.	EA	20		-
162	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 12 mm dia.	No	20		-
163	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 19 mm dia.	No	20		-
164	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 25 mm dia.	No	20		-
165	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 39 mm dia.	No	20		-
166	Providing and fixing heavy duty GM gate valve of approved make and ISI mark. Work includes removal of existing damaged valve etc. complete as directed. (New or Equipment) Size 50 mm dia.	No	20		-
167	Providing and fixing of PVC pipe for down take for 100 mm dia.	RM	35		-
168	Providing and fixing of PVC pipe for down take for 150 mm dia.	RM	35		-
169	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 12 mm dia	M	175		-
170	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 19 mm dia	M	175		-
171	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 25 mm dia	M	175		-
172	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 32 mm dia	M	175		-
173	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 38 mm dia	M	175		-
174	Providing & replacing damaged pipe with heavy duty CPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 50 mm dia	M	175		-
175	Providing all tools & services for removing, rerouting and Refixing existing GI pipeline of 12 to 25 mm dia including all fittings required for the same.	M	70		-
176	Providing all tools & services for removing, rerouting and Refixing existing GI pipeline of 31 to 50 mm dia including all fittings required for the same.	M	70		-
177	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 12 mm dia	M	10		-

178	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 19 mm dia	M	10		-
179	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 25 mm dia	M	10		-
180	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 32 mm dia	M	10		-
181	Providing & replacing damaged pipe with heavy duty unplasticized poly vinyl chloride - UPVC pipes to correct line and level including providing all materials such as C class required GI fittings, carrying out necessary excavation, backfilling & ramming after testing etc. complete. Make: astral/prince/supreme for 40 mm dia	M	10		-
182	Providing and fixing of two way bib cock sicko, including all tools & tackles	No	10.00		-
183	Providing and fixing heavy duty CP concealed two way <b>bib cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	5.00		-
184	Providing and fixing heavy duty CP concealed two way <b>Angle cock</b> size 12mm dia. of approved make with ISI mark as directed.	No	30.00		-
185	Providing and fixing heavy duty CP concealed two way <b>stop cock</b> size 12mm dia. of approved make with ISI mark as directed.	NO	30.00		-
186		NO	30.00		-
187	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	Litre	20000		-
188	Making chases upto 50 mm x 50mm in walls including making good and finishing with matching surface after housing G.I. Pipe etc.	M	500		-
189	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm) with necessary accessories and screws etc. complete. This item will cover a performance guarantee of 1 year, during this Guarantee period if any malfunctioning is observed the same shall be attended by the vendor within 2 day	EA	30		-
190	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete. This item will cover a performance guarantee of 1 year, during this Guarantee period if any malfunctioning is observed the same shall be attended by the vendor within 2 day	EA	30		-
191	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	Ea	50		-
192	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete. Size 50 mm	Ea	50		-
193	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately). Second class teak wood	M3	10		-
194	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (Only area of glass vision panel made in door shutter will be measured) : Rectangular or square	M2	20		-
195	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to steel windows by welding.	Kg	1000		-
196	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance $\pm 1$ mm), with wall thickness 2.0 mm ( $\pm 0.2$ mm), Extruded section profile size 48x40 mm with corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm ( $\pm 0.1$ mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame, Providing and fixing to existing door frames. 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm 0.3$ mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm 0.1$ mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification including necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places , complete as per manufacturer's specification and direction of Engineerin-charge.	M2	30		-
197	Providing and fixing stainless steel tower bolts with necessary screws etc. complete. 150 mm on existing door	EA	20		-
198	Providing and fixing stainless steel tower bolts with necessary screws etc. complete. 200 mm on existing door	EA	20		-
199	Providing and fixing stainless steel sliding door bolt with necessary screws etc. complete. 200 mm on existing door	EA	20		-
200	Providing & fixing stainless steel Door stopper with necessary screws etc. complete. Twin rubber stopper. on existing door	EA	20		-
201	Providing and fixing stainless steel door handel with necessary screws etc. complete 150 mm on existing door	EA	20		-
202	Providing and fixing stainless steel door handel with necessary screws etc. complete 150 mm on existing door	EA	20		-

203	Replacing broken window glasses (6 mm thk.) including fixing pins, weather bar and putties of approved quality (including scaffolding if required ) etc. complete.	M2	45		-
204	Providing and fixing 35 to 38 mm thick commercial flush door shutter with 1.5 mm thick laminate on both side of approved make and shade. Rate shall also include provision of 10 mm thick teak wood beading around the shutter, making it of appropriate size of existing door shutter, all the locking accessories, aldrops on both sides heavy duty brass hinges, heavy duty door closer hyper make sleek model, heavy duty 5" brass handles polishing or painting complete as directed. shutters to be fixed in existing frames.	M2	20		-
205	Providing and fixing 50 mm thick commercial flush door shutter with 1.5 mm thick laminate on both side of approved make and shade. Rate shall also include provision of 10 mm thick teak wood beading around the shutter, making it of appropriate size of existing door shutter, all the locking accessories, aldrops on both sides heavy duty brass hinges, heavy duty door closer hyper make sleek model, heavy duty 5" brass handles polishing or painting complete as directed. shutters to be fixed in existing frames.	M2	20		-
206	Providing, Erecting and Fixing Aluminum POWDER COATED fixed windows conforming to IS:1868. Main frame Shall be made out of hollow extruded sections of size 100mm*75mm*14mm gauge and panelled with 50 mm x 45 mm x 14 gauge top and bottom rails and styles, approved 5.5mm thick clear or opaque glass. All aluminum sections will be finished with anti corrosive rust proof powder coating of approved quality and shade all as per IS codes or as directed.The rate shall be include of filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly.	M2	35		-
207	Providing and Fixing Grid False Ceiling as per specificatiProviding and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. a) with Dune 600x600x16 RH-99 tiles (Tegular Edge./Board edge/Microlook Edge.) of Armstrong make. The rates shall be inclusive for making of opening for electrical fittings and AC blower and return air with appropriate supporting members. Only plan area will be payable. No deduction shall be made for opening left for AC blower and electric fittings and no payment shall be made for for providing additional supports around openings..	M2	35		-
208	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long , G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with: a) 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I.	M2	50.00		-
209	Repair to existing Gypsum board false ceiling with 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete but excluding the cost of painting as per direction of E-I-C	M2	50.00		-
210	Providing and fixing Anti static false flooring with load bearing capacity of 1200 kg concentrated load and 2000 kg /sqm distributed load, of Unitile Everest or equivalent consisting of: Stringers made out of die pressed channels 25x25x25 mm with two die pressed notches at the two ends to snap fit to the jack head for 300 mm height	M2	50		-

211	Providing, Erecting and Fixing Aluminum Anodized fixed partition fully glazed confirming to IS:1868.Main frame Shall be made out of hollow extruded sections of size 100mm*75mm*14mm gauge and panelled with approved 5.5mm thick or opaque glass. All aluminum sections will be finished with anti corrosive rust proof coating of approved quality and shade all as per IS codes or as directed. The rate shall be include of filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly as directed (Heavy duty sections)	M2	14		-
212	Providing & fixing upto 12 mm dia, 100 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
213	Providing & fixing upto 12 mm dia, 140 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
214	Providing & fixing upto 16 mm dia, 100 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
215	Providing & fixing upto 16 mm dia, 140 mm long anchor fasteners of approved make including drilling the holes.	EA	50		-
216	Making chases in walls for replacing, repairing GI conduits at all levels on vertical and horizontal faces with necessary staging to conceal GI conduits including finishing back the surface either smooth or sand faced over Brick masonry, PCC, RCC ( laying of conduit by other agency Size upto 100mm x 75 mm)	M	35		-
217	Providing, placing and fixing <b>profile pre-color coated galvalume RMP sheets or equivalent of 0.5mm</b> total coated thickness to match existing shade (bare galvalume thickness 0.47mm), <b>trough type</b> , zinc aluminum alloy coated (zinc aluminum coating not less then 150g/sqm ), MS high tensile sheet having minimum yield strength of 550MPa including coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting and DFT 5 microns over 5 micron primer on internal surface of sheeting and including all connections and matching fixtures and accessories such as but not limited to J or L bolts & hooks (8 mm, polymer coated), nuts with polymer washers, self tapping screws, protective polymer cap of matching color for bolts, should be supplied in suitable length as desired by Engineer in- charge. The sheet shall be fixed using self drilling /self tapping GI coated screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, etc., complete as per manufacturers recommendations for Sheeting for roof/Side etc.	M2	5000		-
218	Providing, placing and fixing <b>plain pre-color coated galvalume RMP sheets or equivalent of 0.5mm</b> total coated thickness to match existing shade (bare galvalume thickness 0.47mm), <b>plain sheet for flashing , ridges</b> , zinc aluminum alloy coated (zinc aluminum coating not less then 150g/sqm ), MS high tensile sheet having minimum yield strength of 550MPa including coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting and DFT 5 microns over 5 micron primer on internal surface of sheeting and including all connections and matching fixtures and accessories such as but not limited to J or L bolts & hooks (8 mm, polymer coated), nuts with polymer washers, self tapping screws, protective polymer cap of matching color for bolts, should be supplied in suitable length as desired by Engineer in-charge. The sheet shall be fixed using self drilling /self tapping GI coated screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, etc., complete as per manufacturers recommendations for Sheeting for roof/Side etc.				-
219	<b>P/F of corrugated GI Sheets</b> Providing & fixing 16 gauge corrugated GI sheet on roof & cladding with GI bolts, nuts, washers, sealant on bolt etc.	M2	100		-
220	<b>FRP Sheets</b> Providing & fixing new & approved quality <b>corrugated</b> FRP sheets of green colour, thickness 3 mm with new GI bolts, nuts, washers etc.	M2	100		-
221	Providing and fixing fully glazed sliding POWDER COATED windows. Outer frame shall be of size 100 mm x 45 mm x (14 gauge) anodised INDAL section of min. weight 6 Kg / 12' length. The 3 track Box Section (20 mm Series) Indal shall consist of a) Bottom rail size 90 mm x 45 mm (14 gauge) of min. weight 5.5 Kg / 12' length. b) Sides and top rail 90 mm x 32 mm (15 gauge) of min. weight 3 Kg / 12' length, and panelled with approved 5.5mm thick clear or opaque glass. including civil works for filling any gaps between the frame and the wall with cement mortar 1:1 and restore the same original condition neatly.	M2	100		-
222	Providing all materials, tools, service etc. including providing and erecting scaffolding at all heights and carrying out Plaster of Paris punning (average 6 mm thk.) to existing walls as well as newly plastered surfaces in perfect line and plumb to prepare them to receive Acrylic emulsion paint.( Walls and Ceiling ) (Internal surfaces) including necessary surface preparation if required	M2	350		-
223	Providing all materials ,tools, tackles such as wire brush, putty blade,sand paper etc. for removing all loosely adhering material from the internal surface of existing wall, ceiling , plastered surface etc. & ensuring substrate should be clean, free from dust, grease & loose material. Moisten the wall with sufficient quantity of clean water prior to application of 1st coat of Birla White Wallcare Putty or equivalent. Allow the 1st coat surface to dry for at least 3 hrs after that rub the surface gently with the putty blade in order to remove all loose particles. Apply 2nd coat of putty, allow the surface to dry for 10-12 hrs after that rub the surface gently with the putty blade in order to remove all loose particles. Total thickness of the coats should be limited to average 1.5 mm thk.This also includes carrying out the work in perfect line and plumb & prepare them to receive paint.	M2	350		-
224	Providing & laying hume pipe 150 mm Dia confirming to IS 458 (Class NP3) in line and level in required slope or as directed including providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), M 10 concrete below joints but excluding excavation .	M	50		-

225	Providing & laying hume pipe 300 mm Dia confirming to IS 458 (Class NP3) in line and level in required slope or as directed including providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), M 10 concrete below joints but excluding excavation .	M	50		-
226	"Providing all materials, tools, tackles & services for Rehabilitation of RCC Structures as following a.) Repair damaged concrete members including stripping dilapidated and loose concrete, scrapping reinforcement with wire brush and cleaning the same with speciality chemicals( Rusticide SS ) in one or more coats as per manufacturer's specifications. b.) Providing and applying speciality chemicals ( Polyalk Fixoprime ) in recommended proportions to steel bars & exposed concrete in one or more coats as per manufacturer's specifications. c.) Providing and applying speciality chemicals ( Polyalk EP ) in recommended proportions with 1:4 mortar with quartz sand in one or more coats for average thickness of 25 mm as per manufacturer's specifications etc complete as directed.	M2	18		-
227	<b>Protection of RCC Structures by Rehabilitation</b> a)Providing all necessary materials & services to repair damaged concrete members including stripping dilapidated and loose concrete, scrapping reinforcement with wire brush and cleaning the same with speciality chemicals (Rusticide SS) in one or more coats as per manufacturer's specifications. b.) Providing and applying specialty chemicals (Polyalk Fixoprime ) in recommended proportions to steel bars & exposed concrete in one or more coats as per manufacturer's specifications. c.) Providing and applying specialty chemicals (Polyalk EP) in recommended proportions with 1:4 mortar with quartz sand in one or more coats for average 50 mm thickness as per manufacturer's specifications"	M2	35		-
228	Providing and fixing C class GI water pipes, confirming to IS:1239, and galvanized as per IS-4736, in vertical or horizontal positions at all heights including cutting, treading, bending and jointing with necessary C(Heavy) class GI fittings, such as tees, bends, unions, elbows, reducers, couplings, sockets flanges, plug ends, check nuts, etc. cuttings holes, chases in the walls or floors and making good the same with CM 1:4 providing necessary GI malleable clamps and supports and testing the line as specified etc. complete (rate inclusive of fittings and special) 75 mm dia	M	50		-
229	Providing and fixing C class GI water pipes, confirming to IS:1239, and galvanized as per IS-4736, in vertical or horizontal positions at all heights including cutting, treading, bending and jointing with necessary C(Heavy) class GI fittings, such as tees, bends, unions, elbows, reducers, couplings, sockets flanges, plug ends, check nuts, etc. cuttings holes, chases in the walls or floors and making good the same with CM 1:4 providing necessary GI malleable clamps and supports and testing the line as specified etc. complete (rate inclusive of fittings and special) 100 mm dia	M	18		-
230	Supplying & laying of Siporex block for wall 230mm thick and above in cement mortar(1:4) including scaffolding at all heights, curing, raking joints, etc.	M3	7		-
231	Making core cuts in RCC wall/slab etc. up to 100mm to 350mm Thickness 250 mm dia	NO	10		-
232	Making core cuts in RCC wall/slab etc. up to 100mm to 350mm Thickness 150 mm dia	NO	10		-
233	Supplying, fabricating, transporting to site and erecting GI grating in position hot dip galvanized members / structures fabricated as per approved drawings including galvanizing the sections (Zinc coating minimum 80-100 micron DFT) / accessories as per specifications and touch up zinc paint after galvanizing in areas where needed / approved after erection.(Grating size 500shall be as per drawing.All gratings will be supplied by Agency. Agency shall use his own all the tool & tackles to complete the entire work, as per the direction of the site engineer. Agency must approve the sample of grating by TATA Power representative before manufacturing of all the gratings.	Ton	3		-
234	Carefully opening the cracks in plaster, cleaning the cracks with electrical air blower/water & filling the cracks with polymer modified cementitious mortar in proportion 1:5:15 ( i.e. Polymer: cement: well graded quartz sand by wt.) including polymer bonding coat & seal coat, curing etc. complete. Note: Width of cracks upto 6 mm and depth upto 20mm.	M	18		-
235	Providing material, labor & services for oiling and greasing of shutters. Rates are inclusive of providing steel scaffolding	No	21		-
236	Providing all material, cleaning the roof surface and carrying out 3mm thick membrane (approved make) water proofing treatment as under below 1) Filling the cracks, Holes etc., with Tar Plastic (Cold Water Proofing Compound) 2) Applying oil primer T-10 UNDER ENTIRE SURFACE (0.3 liters per sqm) 3) Applying 3 MM thk. approved make modified water proofing membrane by torch welding with 100mm*100mm side and end laps without airgases 4) Applying one coat of bituminous base silver shield paints over entire work of membrane Note : Contractor should give 5 years guarantee.	M2	14		-
237	Providing all tools, tackles & equipment's necessary for trimming of tree branches inclusive providing and maintaining scaffolding till trimming activity, provision of fall arresting jali, making access to branches, ladder, cutting tools, crane if required, etc. complete as per requirement of job and instructions of engineer in charge. The rate should be inclusive of trimming tree, collecting & stacking debris near site & dispose off the debris in approved ground. Statutory payment will be paid by the Owner against official demand notes received from statutory bodies.	No	250		-
238	Cleaning of septic tank , including chambers with gully sucker & providing plumbing services including all required tools, tackles, materials & fixtures including loading, unloading & transpotation up of sewerage to identified disposal site etc complete as directed,	No	14		-
239	Cleaning of choked sewage chambers by providing plumbing services including all required tools, tackles, materials & fixtures including loading, unloading & transpotation up of sewerage to identified disposal site etc complete as directed,	Ea	14		-
240	Making soak pit 2.5 m diaeter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diaeter, 1.8 m long complete as per standard design. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	5		-
241	Cleaning of O/H water storage tank up to 1000 ltrs. i/c cleaning with potassium permanganate / bleaing powder and finally with clear water complete.	EA	20		-

242	Providing all necessary material, tools, tackles & services for supplying & laying MS grating of sizes and of the design as per drawing approved by Owner,	MT	2		-
243	Providing & applying two coats of Elastomeric coating having 200-300% elongation over a coat of primer over properly prepared plaster surface including scrapping all loose material on existing plastered surface etc.	M2	100		-
244	Supplying, Providing and laying, un-coursed random rubble masonry in cement mortar 1:5 with approved local stones of good quality for walls / footings, etc. and as fill under foundations in true line and levels, including curing, de-watering wherever necessary, raking of joints etc. complete for work below ground/grade level at all depths and grade level up to plinth etc.,	M3	21		-
245		M2	35		-
246	Making khurras 45 x 45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x 1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete	EA	20		-
247	Providing and fixing interlocking concrete paver blocks of 80mm thk. of M40 grade. Concrete paver blocks shall be uniformly shaped (monolithic #single layer precast concrete blocks) of specified color and pattern as per technical specification, placed on avg. thickness of 50 mm uniformly graded river sand cushioning with proper compacting with mechanical compactor with the proper level, grade and camber etc. complete as directed. The side joints / Open ends should be filled / sealed by M-25 grade concrete as required etc. he testing of paver blocks shall be arranged by the contractor at the time of approval and during execution of job at their own cost.	M2	100		-
248	<b>Providing 60 feet long Man lifter upto 60 feet long for civil work including</b> providing services for civil work irrespective of height and location of the work complying with all safety rules and procedures of company practices followed in company complete as directed by the Owner	day	75		-
249	Providing services for removal of choke from sewage line using municipal gang with sucking machine	EA	50		-
250	Providing all your materials , tools tackles marking and painting of strip, width 75mm to 150 mm, for road / passage marking with synthetic enamel, brushe, solvent, tools and tackles, skilled painter for cleaning and preparing the surface by scrapping sand papering to remove loose scale, making the surface plain and marking the strip, painting two coat over a coat of primer in perfect strip and painting two coat in perfect alignment marking	M2	50		-
251	Providing all your materials , tools tackles marking and painting of speed breaker, zebra crossing, kerb stones, skilled painter for cleaning and preparing the surface by scrapping sand papering to remove loose scales, grease, making surface plain and marking the strips and painting in two coat of synthetic enamel paint over a coat of primer in perfect alignment	M2	20.00		-
252	Providing and fixing of roller blind for window, providing all equipment, material, tools, tackles etc. for fixing blinds for windows of approved make and shade etc.	M2	50		-
253	providing and fixing of blind, type: vertical, width: 75 mm, providing all equipment, material, tools, tackles etc. for fixing blinds of approved make and shade etc.	M2	50		-
254	Providing and fixing of sun control film of approved make like Garware or equivalent including providing all equipment, material, tools, tackles etc. for fixing sun film without any air bubbles / scratches.	M2	50		-
255	Providing and fixing fibre sheet of 3 mm thickness inclusive of all fastners, nuts, bolts etc and inclusive of labour complete	NO	10		-
256	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 100 m outside of periphery of the area cleared.	M2	7.00		-
257	Supplying, diluting and injecting chemical emulsion PRE CONSTRUCTIONAL ANTI- termite treatment and creating a continuous chemical barrier under and all around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surrounding of pipes and conduits etc. complete as per IS codes & specifications (plinth area of the building at ground floor only shall be measured for payment) a) Chlorphyriphos Emulsifiable concentrate 20% with 1% concentration Note : Contractor shall have to furnish from the specified agency carrying out the work under anti-termite treatment a written corporate guarantee on non-judicial stamp paper of Rupees 100 in favour of Owner for the satisfactory performance of the treatment for a period of ten years	M2	200.00		-
258	Supplying, diluting and injecting chemical emulsion POST CONSTRUCTIONAL ANTI-termite treatment creating a continuous chemical barrier i/c all the wood work, door frames, wooden cabinets, almiraahs, wall mounted cabinets, work stations, wooden partitions etc. (floor area of the building only shall be measured for payment) a) Chlorphyriphos Emulsifiable concentrate 20% with 1% concentration. Note : Contractor shall have to furnish from the specified agency carrying out the work under anti-termite treatment a written corporate guarantee on non-judicial stamp paper of Rupees 100 in favour of Owner for the satisfactory performance of the treatment for a period of ten years	M2	200.00		-
259	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ±1mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineerin-charge. Extruded section profile size 48x40 mm	M	35.00		-

260	Providing and fixing to existing door frames. 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm$ 0.3 mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm$ 0.1 mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places	M2	10.00		-
261	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 120 mm	EA	100.00		-
262	Providing and fixing carbon steel galvanised ( minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. 10 x 160 mm	EA	100.00		-
263	Providing and fixing IRC fabric (welded mesh) of size 35x75 mm of required guage to the frame of MS angles, channels, tees, flats etc. at all floor levels including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer as required. In frames, gates etc. (Cost of MS frame will be paid separately). Fixed to steel frames by welding.	Kg	5000.00		-
264	Providing and fixing stainless steel ( Grade 304) gate, grill, railing etc. made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, including fixing the gate with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose weight of stainless steel members shall be considered including fixing s.s. accessories such as nuts, bolts, fasteners etc.)	Kg	500.00		-
265	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. Single socketed pipes including all fittings, clamps, spacer etc.. 110 mm dia	M	50		-
266	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. a) single socketed pipes. including all fittings, clamps, spacer etc. 150 mm dia.	M	50		-
267	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long , G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with: a) 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I.	M2	50		-
268	Providing and fixing Vitreous china Urinal partition of standard design and required color, of Hindustan / Parryware or eq. make using screws etc complete	EA	10		-
269	Providing and fixing 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with CP brass screws and washers complete.	EA	10		-
270	Providing and fixing CP brass Jet and accessories to english type WC of approved quality and make complete.	EA	10		-
271	Providing and fixing CP brass bottle trap of approved quality.	EA	10		-
272	Providing and fixing low height opaque partition 54mm thick from floor to desired height (below false ceiling) consisting of 45x45mm 1st class kail wood frame work with a fire retardant paint applied on it forming frame work at 450-600 C/C nominal in both directions fixed rigidly in flooring and side support by screws/GI cleat etc. The frame work shall have one side 8/9mm thick commercial ply and gap in frame work filled with 45mm thick up tuiga mineral fibre wool with a density of 50 kg/M <sup>3</sup> , exterior sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kal wood runner and making provision for laying conduits switches box with 8 x 75 mm teak wood or laminated skirting, polishing etc complete.	M2	12.00		-

273	Providing and fixing suspended Gypsum board ceiling (straight, vertical & curved) consisting of fixing GI perimeter channels of 27mm x0.5mm thick having one flange of 20mm and another flange of 30mm along with perimeter of the ceiling, screws fixed to RCC/ Brick/foam block walls/ gypsum board partitions with the help of rawl plugs and screws. The suspending GI intermediate channels of size 45x0.55mm th. With two flanges of each from the soffit @1200mm centre with GI hangers of 25mm x 0.5mm thick Fixed to soffit with GI cleat and steel Expansion fasteners and to intermediate channel with GI nut and bolt. Ceiling section of 0.5mm thickness having knurled wedge of 51.5 mm and two flanges of 26mm each with lips of 10.5mm then fixed to the intermediate channel with the help of connecting clips and in direction perpendicular to the intermediate channel at 450mm centers, 12.5mm th. Tapered edge gypsum plaster board (confirming to IS 2095-1982) is then fixed with screws to ceiling section with 25mm dry screws at 230mm centers at the underside of ceiling section framing. Screws to be fixed mechanically either with screw driver or drilling machine with suitable attachment, providing angle beads and edging beads wherever necessary, finishing even appearance. P/f trap doors made of laminated boards with wooden frames, p/f wooden shadow battens (holloc wood, black enamel painted - 25x40mm) at wall peripheries and ends, extra frame work for fixing lights, making cutouts for electrical / HVAC / plumbing works etc. complete.	M2	12.00		-
274	Providing and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. a) with Dune 600x600x16 RH-99 tiles (Tegular Edge./Board edge/Microlook Edge.) of Armstrong make	M2	17.00		-
275	Providing and fixing false ceiling tiles of approved materials of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x35 mm made of 0.30 mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200 x 600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick(minimum) sheeet to be interlocked at middle of the 1200 * 600 mm pane; to form grids of 600 x 600 mm laying false ceiling tiles of approved texture in the grid including wherever required cutting/making opeing of services like diffusers, grills, light fittings, fixtures, smoke decetors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fastners, 2.8 mm GI adjustable rods with galvanised level clips spaced at 1200 m center to center main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer - in - Charge. b) with Ultima 600x600x19 RH-95 tiles (Tegular Edge./Board edge/Microlook Edge) Of Armstrong make	M2	12.00		-
276	P/F full ht. in approved pattern opaque / partly glazed (with 5.5 mm thk.glass fixed with lnd class teak wood beading ) partition 63-65 mm thick from floor to false ceiling consisting of 45x45mm 1st class. kail wood frame work with a fire retardant paint applied on it forming frame work at 450-600 c/c in both directions fixed rigidly in flooring and ceiling by screws/GI cleat etc. The frame work shall have on both sides 9mm thick commercial ply and gap in between filled with 45mm thick UP tuiga mineral fibre wool of density 50 kg/M³, exteriors sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kail wood runner and making provision for laying conduits switches boxes with 8 x 75 mm teak wood or laminated skirting , polishing etc complete, as per instruction of Engineer in charge.. (Any frame work beyond partition height shall be paid extra)	M2	12.00		-
277	P/F full ht. in approved pattern 55 mm thick from floor to false ceiling consisting of 45x45mm kail wood wood frame work with a fire retardant paint applied on it forming frame work at 450-600 c/c in both directions fixed rigidly in flooring and ceiling by screws/GI cleat etc. The frame work shall have on one sides 9mm thick commercial ply,exteriors sides of ply shall be laminated with 1.0mm thick laminate of approved shade and approved colour texture with bands in between (as per design) fixed with adhesive. Necessary extra kail wood runner and making provision for laying conduits switches boxes with 8 x 75 mm teak wood or laminated skirting , polishing etc complete, as per instruction of Engineer in charge..	M2	7.00		-
278	P/F toilet's & pantry's counters underneath fascia of 300mm wide of desired length made up of 19mm thick commercial Board with 1.0mm laminate on user side and with balancing white on other side with 4 mm second class teak margin on top and bottom end fixed with kail wood batten of cross section 45x45mm along the horizontal length of fascia and of 45x45mm along the two extreme vertical ends, if required, (the cost of frame shall be paid extra) completed in all respect.	M	3.00		-
279	Chipping , cleaning of concrete from columns, beams and slab manually including scaffolding as directed by Engineer – in - charge and disposal of malba with in 50 m lead.	M2	40.00		-

280	Providing & fixing L shaped modular workstation fixed on medium ht partitions (MHPs) of 45mm thk panel based partition system of 1200mm ht having approved quality Aluminium section, rigid framework. The partitions shall have two concealed raceways (at bottom and mid place) in steel and covered in extruded aluminium powder coated and ABS plastic caps. The panel should have a combination of 9mm thk pre laminated soft pin up boards, and white board with matching skirtings and aluminium powder coating top trim on the top of the partition. Glass separator of 8mm thk with polished edge to be fixed between the two work tops. The work top made of 25mm thk pre laminated particle board of approved make and quality and balancing laminate of approved thickness on the unexposed surface. The work top shall be 600mm deep and are to be fixed on the partitions at 750mm ht from the FFL. All the exposed edges to have PVC edge band, the work top should be well matched in profile at corners, etc. (Size 1500 L x 1500mm W x 750mm H.) and Providing pedestal drawer units of overall dimensions of 400mm width, depth 450mm and ht 725mm having 3 drawers with locking arrangement. The inner drawer should be made of pre laminated particle board of 18mm and smooth sliding telescopic arrangement. The pedestal drawer unit shall have 18mm thk pre laminated matching and approved colour. The overall unit shall have adequate provision fixed underneath the work tops at desired locations, thereby also supporting the work tops at such places directly and neatly. with prefixed Keyboard Tray with Telescopic slides made up of ABS plastic body	EA	1.00		-
281	Providing and fixing 45mm thick panel based partition system of 1200mm ht. having approved quality Aluminium section, rigid frame work. The partition shall have two concealed raceways (at bottom and mid place) in steel and covered in extruded aluminium powder plastic caps. The panel should have a combination of 9mm thick pre laminated board, soft pin up board etc. with matching skirtings and aluminium powder coating top trim on the top of the partition complete	M2	1.00		-
282	Providing and Fixing 18mm thick pre laminated gable end fixed below the work top to balance the same. The exposed edges shall be covered and sealed with 2mm thick PVC edge bending	M2	1.00		-
283	P/P circular meeting table of 1500 mm dia - 760 mm(ht) top made up of 19mm thick commercial block board with 2.0mm thk. top veneered, with 25x30mm second class teak moulding, finished in stained spirit polish with water proof melamine finish, resting on circular shape pedestal of 900 dia made up of 50x50 mm hard wood frame work placed at a distance of 400 – 450 mm c/c in both directions, wrapped with 3mm flexible ply in layers, laminated from outer exposed side resting on 100mm wide skirting, complete in all respect.	EA	2.00		-
284	EXECUTIVE TABLE: Providing & fixing in position consisting of the followings:Top made out of 19mm comm. board, with second class teak wood moulded edging of size 32x 50 mm, with Treated wood support fr. of size 45x50 at 450c/c.The apron structure is made of 19mm th. comm. board with inner frame work of tr. wood of size 40x50mm at nominal 450c/c, with extra frame for the tapered corner edges, fixed to table top frame work. The apron and table top is to receive 1.0 mm lamination. Skirting band shall be of size 12x100mm with moulded top edge. The inner side of the apron shall have 12mm comm ply from inside to the frame work to provide finished surface. The drawer unit structure is made out of 19mm comm. bd. with drawers facia and inner structure of 115x12mm teak wood with base ply of 6mm ply with the facia edges having 12x10mm moulded beading and to receive 1.0 mm th. laminate same as the table. The table unit is to be melamine polished water proof matt finish.The drawers are to be sliding on nylon runners in aluminium channels, locking arrangement handles, brass hinges foot-rest etc.a) 1800x750x750 mm	EA	2.00		-
285	EXECUTIVE TABLE: Providing & fixing in position consisting of the followings:Top made out of 19mm comm. board, with second class teak wood moulded edging of size 32x 50 mm, with Treated wood support fr. of size 45x50 at 450c/c.The apron structure is made of 19mm th. comm. board with inner frame work of tr. wood of size 40x50mm at nominal 450c/c, with extra frame for the tapered corner edges, fixed to table top frame work. The apron and table top is to receive 1.0 mm lamination. Skirting band shall be of size 12x100mm with moulded top edge. The inner side of the apron shall have 12mm comm ply from inside to the frame work to provide finished surface. The drawer unit structure is made out of 19mm comm. bd. with drawers facia and inner structure of 115x12mm teak wood with base ply of 6mm ply with the facia edges having 12x10mm moulded beading and to receive 1.0 mm th. laminate same as the table. The table unit is to be melamine polished water proof matt finish.The drawers are to be sliding on nylon runners in aluminium channels, locking arrangement handles, brass hinges foot-rest etc.b)1500x750x750mm	EA	2.00		-
286	P/P Executive table of size 1800x900x750mm (ht) rectangular in with following components. Top made up of 30mm thick MDF board with sides from user end and visitor i.e along full length of top, ends in full round post formed in flex as per manufacturer specification and in back with balancing white, with cable manager, modesty panel 450mm wide in 18mm MDF board edges at both end full round circle post formed with flexes as per specification, resting on drawer unit and side unit at each end with provision of computer key tray. Drawer unit made up of 18mm thick MDF board Boxed from all three sides and top resting on 100mm wide recessed laminated skirting of size 300x600x760 mm (ht) with one No. drawer unit of 130mm wide running on side runner and rest in shutter (18mm MDF) with both ends half round rounded off post formed with flex as per manufactures specification and rest from inside in 1 mm white glossy laminate, complete in all respect in terms of concealed hinges, Magnet, locks, handles etc. Side units made up of 18mm thick MDF board , boxed from all three sides and top divided in to three parts , all laminated with 1mm glossy white laminate from inside; with first two horizontal shelves in 12mm MDF board post formed with full round from user side with sliding shutter made up of 18mm MDF board both end half round rounded off in post forming from user side and remaining in balancing white shutter running on slide, brand hanfa on PVC guidelines and PVC channels color brown with recessed handle, key etc. complete in all respect and remaining portion under table top opened for CPU, from front side, rest boxed, laminated from inside all resting on 100mm wide laminated slating complete in all respect in terms of accessories.	EA	2.00		-

287	Storage unit/Side cabinet, filling cabinets consisting of 19mm thick commercial board structure, partitions, shelves, back with top moulding of 40x40mm and skirting of size 12x100mm with moulded edge. The shutters of divisions as per design shall be made of 1.0mm laminate and shutter edges to have 32x12mm moulding all around. Drawers construction shall be similar to that of the table. All exposed surface, top sides, finished in 1.0mm lamination of approved shade and texture. Brass hinges, brass ball catcher, locks to all shutters, melamine water cut matt finish, complete as per details (ii) 1050x450x675mm	EA	2.00		-
288	FMC (Low ht.) Providing making and fixing filing cabinets firmly fixed to the wall / partition and grouted to floor, 375 -450 mm deep comprising of 19 mm commercial board for shelves, bottom, shutters, apron, with all exposed of the cabinet with 1.0mm thk. lamination as per approved texture design including skirting 75 to 100 mm high laminated, all cut edges of shutter to have 25x12mm moulded teak lipping, All hardware of brass plate hinges, locks, with all wooden surface to be stained spirit polished with melamine finish. Interior of the Cabinets to have 3 coats of synthetic enamel paint with a coat of primer and back side should have 9 mm thick ply with primer. (measurement will be made for front elevation of the cabinet) a) 19 mm commercial board top with 1.0 mm thk. laminate	M2	2.00		-
289	FMC (fl to ceiling) Providing making and fixing filing cabinets firmly fixed to the wall / partition and grouted to floor, 375 -450 mm deep comprising of 19 mm commercial board for shelves, bottom, shutters, apron, with all exposed of the cabinet with 1.0mm thk. lamination as per approved texture design including skirting 75 to 100 mm high laminated, all cut edges of shutter to have 25x12mm moulded teak lipping, All hardware of brass plate hinges, locks, with all wooden surface to be stained spirit polished with melamine finish. Interior of the Cabinets to have 3 coats of synthetic enamel paint with a coat of primer and back side should have 9 mm thick ply with primer. FMC (fl to ceiling) (measurement will be made for front elevation of the cabinet) a) 19 mm commercial board top with primer	M2	2.00		-
290	CONFERENCE ROOM TABLE.: Conference room table oval shaped, consisting of the followings: Top is made of 19mm comm grade board, with base frame of treated wood of size 50x 40 mm at nominal distance of 550-600mm in both directions. The table top is to have edging of moulded second class teak of size 45 x 60mm all along the length of the top, is to be rendered with 1.0 mm th. lamination of approved shade as directed. The base pedastal is 'T' shaped -2 nos., fixed to the frame work of table top, comprises of hard wood framework of size 32x40mm at 450-500 c/c, with extra frame at the rounded edges, and at the skirting lvl., The frame work of the base pedastal is to have 19mm block board onto both sides of frame work, with t.w. moulded edge frame of size 70mm x 40mm at the vertical and the bottom edge. the exposed surface is to be rendered with 1.0 mm lamination of approved shade and texture. The table is to have stained spirit polish with water cut melamine finish. (ii) OVERALL SIZE 2100X 1050X750MM HIGH	EA	2.00		-
291	P/P drawer unit of size 770x450x730mm (ht) made up of 18mm thick MDF board, boxed from all three sides & top, inside laminated with 1.0mm white glossy, Double Shutter, edges rounded off exposed surface post formed with flex as per manufacture specification of approved shade and rest from inside with balancing white as per manufacturer specifications resting on 100mm wide recessed laminated skirting with one intermediate horizontal shelf, complete in all respect in terms of concealed hinges, handles, magnets locks etc. (Make: Godrej/Hettich))	EA	2.00		-
292	Providing and fixing and placing in position three drawers unit of size 415x450x725mm including hardware fitting half crank hinges brass handle multipurpose lock Godrej/Hettich make drawer channel etc. all complete as per item Nos 60-62 and as directed by EIC.	EA	2.00		-
293	Conference Table: (3000x1000): S&I Conference Rm. Table 40 mm thk formed out of 19 mm thick board top and 6mm thk ply bottom with filler piece to achieve 40mm thk. All edges to be strengthen in requisite width to form a profile of 40mm edges to receive moulding out of wood 40x40 mm matching to veneer as per detail and approval of Client. Top shall be finished in patterned veneer with grains/inlays as per details with 3 or more coats of melamine spray polish and fixed on drum pedestals as per design and detail of architect.	EA	2.00		-
294	Providing and fixing 12 mm thick toughened glass door of required size and design with patch fitting, 18" long heavy duty steel handle with necessary screws and floor spring, door lock (ozone/doorset make) etc. complete.	M2	10.00		-
295	Providing and fixing 12 mm thick toughened glass partition r of required size and design with patch fitting and associated works etc. complete.	M2	30.00		-
296	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	300.00		-

297	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	220.00		-
298	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side	M2	45.00		-
299	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides.	M2	45.00		-
300	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item) With float glass panes of 5.5 mm thickness	M2	30.00		-
301	Repairing of aluminum doors/windows/ventilators by changing damaged butt hinges, screws i/c dismantling and refixing the leaf, tightening of corner screws etc. complete job. For repairing up to three leafs at one location (Rate per leaf of any size).	EA	20.00		-
302	Fixing of available aluminium partition with glass and board including screws, transportation to site etc. complete in all respect as directed by EIC	M2	15.00		-
303	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item); With float glass panes of 5 mm thickness	M2	12.00		-
304	Providing and fixing 12 mm thick toughened glass door of required size and design with patch fitting and floor spring (ozone/doorset make) etc. complete.	M2	9.00		-
305	Providing and fixing handle (18" long) of Ozone/doorset make for toughened glass door with necessary screws etc. complete.	EA	8.00		-
306	Providing and fixing aluminium hinges upto 150 mm in aluminium doors / windows / ventilators i/c screws etc. complete	EA	12.00		-
307	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : b) For fixed portion Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15). With Champagne colour anodising.	Kg	200.00		-
308	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15) with champagne colour	Kg	200.00		-
309	Providing and fixing aluminium Handle for RHS/LHS aluminium windows of similar finish as for window including cleats, screws etc complete	EA	25.00		-
310					-
311	Prunning the branches of tree as required including arrangement of ladder, axe, saw etc to complete the job including removing of vegetation from site to the dumping yard upto any lead and lift.	EA	20		-
312	Proving all your equipment, tools and tackles and rendering services of Tree trimmer along with helper and consumables for trimming , prunning, cutting of branches required for lighting , safety purpose as per requirement at site complete as per direction of Owner.(The unit of per day is meant for 8 hours and it shall be paid judicially on pro-rata basis depending upon the quantum and duration of job but not less than 0.50 day)	day	15		-

313	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x 2mm and braced with flat iron diagonals 20x5 mm size with top and bottom rail of T-iron 40x40x6mm with 40mm dia, steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles including applying a priming coat of approved steel primer.	M2	10			-
314	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x0.90 mm M.S. laths with 0.90 mm thick top cover	M2	10			-
315	Providing and fixing IRC fabric (welded mesh) of size 35x75 mm to the frame of MS angles, channels, tees, flats etc. at all floor levels including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer as required. In frames, gates etc. (Cost of MS frame will be paid separately). Fixed to steel frames by welding.	KG	75			-
316	Providing & Fixing asbestos cement 6mm thick corrugated sheets roofing up to any pitch and fixing J or L hooks, bolts and nuts 8mm dia. G.I. plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete (excluding the cost of purlins, rafters and trusses), including cutting sheets to size and shape wherever required.	M2	200.00			-
317	Providing and fixing ridges and hips in asbestos cement sheet roofing with suitable fixing accessories or self drilling fastener and EPDM washer etc. complete. Plain ACC ridges	M	100.00			-
318	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for therequired duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineerin- charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding. As per the safety requirement indicated in the safety manual of Owner. Note: - This item to be executed for work to be done by other agency as [er the requirement of Owner complete as directed.	M2	500			-
319	Injecting approved epoxy system into cracks at required pressure, cutting of nipples etc complete. (weight of epoxy shall be measured)	Kg	20.00			-
320	Injecting cement/cement sand slurry into cracks at required pressure, cutting of nipples etc. complete (weight of cement shall be measured)	Kg	90.00			-
321	Providing, drilling and inserting injection nipples along cracks linesor as directed by E.I.C for epoxy grouting or cement/cement sand slurry grouting.	EA	180.00			-
322	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : 150x100 mm P type. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	5.00			-
323	Providing and fixing square-mouth S.W. gully trap grade class SP-I complete with C.I. Grating brick masonry chamber with water tight C.I. Cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design: 180x150 mm P type. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	EA	3.00			-
324	Electrical Works					-
325	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.- Group A	Point	400.00			-
326	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.-Group B	Point	100.00			-
327	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 2X1.5 + 1X1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required-Group C	Point	50.00			-
328	Wiring for light point /fanpoint/exhaust fan/call bell point with 2X1.5 + 1X1.5 Sq mm PVC insulated copper conductor wires in recessed/surface PVC conduite,with modular switch,modular plate,suitable G.I box and earthing the point with 1.5 sq mm copper conductor wire etc as required. (Excluding of Ckt wiring from D.B to switch boards)Single light point controlled by a 6Amps modular type switch.(e) Three light points controlled by a 6Amps modular type switch.	EA	25.00			-
329	Wiring for light point /fanpoint/exhaust fan/call bell point with 2X1.5 + 1X1.5 Sq mm PVC insulated copper conductor wires in recessed/surface PVC conduite,with modular switch,modular plate,suitable G.I box and earthing the point with 1.5 sq mm copper conductor wire etc as required. (Excluding of Ckt wiring from D.B to switch boards)Single light point controlled by a 6Amps modular type switch.(f) four light points controlled by a 6Amps modular type switch.	EA	25.00			-
330	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 1X 1.5 Sqmm	M	500.00			-

331	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3 X 1.5 Sqmm	M	1500.00		-
332	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 2.5 Sqmm	M	3000.00		-
333	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 4 Sqmm	M	2000.00		-
334	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required. 3X 6 Sqmm	M	100.00		-
335	WIRING 4x10+2x6 sq mm Supply and drawing of following sizes of PVC insulated stranded copper conductor wires of 1100 Volts grade in existing conduit, pipe including connection/termination etc as required.(e) 4x10+2x10 sq mm	M	200.00		-
336	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 16 sq. mm + 2 X 6 sq. mm earth wire	M	50.00		-
337	Providing and fixing of plug - in type telephone socket outlet (RJ-11) with G.I.outlet box and cover plate complete as required. Single plug in type	EA	100.00		-
338	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required- 4 Pair	M	2500.00		-
339	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required- 50 Pair	M	100.00		-
340	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 20 mm	M	200.00		-
341	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 25 mm	M	2500.00		-
342	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 32 mm	M	75.00		-
343	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 40 mm	M	100.00		-
344	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 50 mm	M	100.00		-
345	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 5/6 amps switch	EA	25.00		-
346	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 2 way 5/6 amps switch	EA	50.00		-
347	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 15/16 amp switch	EA	50.00		-
348	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 3 pin 5/6 amp socket outlet	EA	50.00		-
349	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 6 pin 15/16 amp socket outlet	EA	50.00		-
350	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 1 -2 Module	EA	100.00		-
351	Supply and fixing of 6/16 Amp switch, sockets of MK make modular type in PVC/GI box complete in all respects with testing & commissioning.	EA	150.00		-
352	SWITCHED SOCKET OUTLETS (6 A AND 16 A) Supplying and fixing of a set of 2 Nos 6 A Socket outlets and one no 16 A Socket controlled by 16 A Master Switch of MK make including GI/PVC box, connections complete in all respect	ST	25.00		-
353	SWITCHED SOCKET OUTLETS (6 A) A set of 2 Nos. 6 A switched socket outlets (FOR UPS )in a box, with providing & fixing 2 nos. 2/3 pin 6 A switches & socket outlets( But switch& socket should be at defferent possition or as required)..	ST	200.00		-
354	Supply & fixing of a set of one 6 amp switch & socket of modular type with suitable size G.I box.	EA	300.00		-
355	Supply & fixing of anchor make batten typ lamp holder & one no 11 watt CFL	EA	20.00		-
356	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as requireds	EA	100.00		-
357	INDUSTRIAL SOCKET OUTLETS (25/32A DPMCB) Supply, installation, testing & commissioning of industrial type plug and socket outlet with SP/TPN MCB (10 KA motor duty) mounted on a sheet steel enclosure including termination, earthing etc as required . (b) Supply and fising of 25/32 Amp DP MCB (C series) of approved make in MS encloser	EA	100.00		-
358	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	EA	25.00		-
359	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB omplete with connections, testing and commissioning etc. as required. Single pole	EA	250.00		-
360	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole and neutral	EA	20.00		-

361	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Triple pole	EA	20.00		-
362	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 25 amps	EA	60.00		-
363	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	EA	30.00		-
364	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	EA	30.00		-
365	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps MCB four pole.	EA	25.00		-
366	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 25 amps	EA	25.00		-
367	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	EA	25.00		-
368	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	EA	5.00		-
369	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32amps 240 volts "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	EA	30.00		-
370	Supplying and fixing TP sheet steel enclosure on surface/ recessed along with 16/25/32amps 415 volts "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	EA	15.00		-
371	Supply & fixing of single phase 3-pin 32 Amp rating floor mounted industrial sockets weather proof IP 67 of Legrand/Neptune /Balls make complete pair with male & female type plug & socket arrangement.	EA	50.00		-
372	Supply & fixing of 63 Amp 3 phase 5 pin IP 65 industrial socket with top & complete with encloser & 3 phase MCB of 63 amp rating of HAGER / Legrand /L&T /Merlingerin make	ST	10.00		-
373	Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 30 A, "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	EA	20.00		-
374	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 4 way (4 + 12), Double door	EA	10.00		-
375	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 6 way (4 + 16), Double door	EA	10.00		-
376	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, EArth bar, din bar, detachable gland plate, interconnections, powder painted including EArthing etc. as required.(But without MCB/ RCCB/ Isolator) 8 way (4 + 24), Double door	EA	10.00		-
377	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, EArth bar, din bar for mounting MCB's (but without MCB's and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 12 way (4 + 36), Double door	EA	10.00		-
378	Providing and fixing following rating and braking capacity and 3 pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.125 Amp, 16 KA,TPMCCB	EA	10.00		-
379	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 12 way, Double door	ST	10.00		-
380	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 8 way, Double door	EA	10.00		-

381	Supplying and fixing following way prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator) 16 way, Double door	EA	10.00		-
382	VTPN (ACDB): 6W TPN Supply, installation, testing and commissioning of following double door type distribution boards fabricated out of 16 SWG, CRCA sheet steel recessed in wall or surface mounted. 6-way TPN AC DB double door type (IP 43),consisting of one no100 Amp TP MCCB (10 KA) as in commer & 18 no 25/32 Amp S.P MCB as out going.	ST	10.00		-
383	VTPN DB (ACDB): 8W TPN Supply, installation, testing and commissioning of following double door type distribution boards fabricated out of 16 SWG, CRCA sheet steel recessed in wall or surface mounted. 8 -way TPN AC DB double door type (IP 43),consisting of one no100 Amp TP MCCB (10 KA) as in commer & 18 no 25/32 Amp S.P MCB as out going.	ST	10.00		-
384	Supply, laying & fixing of following sizes of Cu/GI strip/wire clamped to walls, cable trays etc for equipment/ System earthing complete as required including inter connection between length at joints, all fixing accessories saddles, clamps etc and other fixing hardware material as required for proper installation.8 SWG G.I Wire	M	100.00		-
385	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	EA	10.00		-
386	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	ST	10.00		-
387	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	ST	6.00		-
388	Supply, Installation, Testing & Commissioning of Advance Miantenance Free Chemical Earthing System of 10 feet length, 63mm dia, 2 mm thick electrolytic grade copper tube duly filled with conducting chemicals with the permanant sealings at the both the ends with the lead terminal at the top along with 50 Kgs a chemical GEM to retain the life span of 15 years with the heavy duty poly plastic earth pit cover. The chemicalearthing system should be fabricated with earthing electrode and back fill compound which has the capability to enhance the ground connectivity. The connectivity should be extended to the place of equipment thourgh the copper strip which will be burried under ground.The specification of the electrode are as under a) Electrode should be 3 meter long 63mm thick in diameter =0 1 no B) Should be made of galvinsed steel (90-100) microns with pipe in pipe technology C) Annular space filled with high conductive and anti corrosive withhigh conductive and anti corrosive crystalline conductive mixture D) Should be strong and corrosion resitant E) Manufactured in accordance with PS 3043-1987 (Code of pratice of earthing) F) Electrode should be dug in ground Sralong with soil friendly, moisture retaining back fill compound which has capability to enhance groundconductivity (min 125Kg of back fill compound for earthing system) G) The result should be below 1 Ohm in any case .	ST	2.00		-
389	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	M	100.00		-
390	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	M	200.00		-
391	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 2.5 Sq mm Copper armoured XLPE cable	M	20.00		-
392	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 4 Sq mm Copper armoured XLPE cable	M	20.00		-
393	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated <u>copper conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardwareetc as required. c ) 3 core 6 Sq mm Copper armoured XLPE cable	M	20.00		-
394	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC <u>insulated Aluminium conductor armoured cable</u> 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. b) 3 core 6 Sq. mm Aluminium	M	250.00		-
395	Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. a) 2 core 10 Sq. mm Aluminium	M	250.00		-
396	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 3 C x 10 Sq.mm	M	250.00		-
397	4CX10sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. b ) 4 core 10 Sq mm Aluminium	M	250.00		-
398	4CX16 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 16 Sq mm Aluminium	M	250.00		-
399	4CX25 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 25 Sq mm Aluminium	M	100.00		-

400	4CX35 sq mm Aluminium "Supply, laying, testing and commissioning of following sizes of PVC sheathed PVC insulated Aluminium conductor armoured cable 1.1 KV grade on wall, or in existing cable tray / wall /hume pipe with fixing hardware etc as required. c ) 4 core 35 Sq mm Aluminium	M	100.00			-
401	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 50 Sq.mm	M	50.00			-
402	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4C x 95 Sq.mm	M	25.00			-
403	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 185 Sq.mm	M	25.00			-
404	Supplying and laying of following sizes of 1.1 KV grade multicore aluminium conductor XLPE insulated armoured cable conforming to IS:7098 (Part - I) complete with all amendments etc. as required. 4 C x 300 Sq.mm	M	25.00			-
405	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Upto 25 sq. mm	M	500.00			-
406	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Above 25 sq. to 120 sq. mm	M	50.00			-
407	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power cable1.1 KV aluminium conductor cable of sizes direct in Ground including excavation , sand cushioning protective covering and refilling the trench etc in as required; Above 120 sq. mm to 400 sq. mm	M	50.00			-
408	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes <b>on surface</b> as required:- Upto 25 sq. mm	M	50.00			-
409	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes on surface as required:- Above 25 sq. to 120 sq. mm	M	50.00			-
410	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, of following sizes on surface as required:- Above 120 sq. mm to 400 sq. mm	M	50.00			-
411	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following sizes in the existing RCC/ HUME/ STONEWARE/ METAL pipe as required:- Upto 25 sq. mm	M	50.00			-
412	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following sizes in the existing RCC/ HUME/ STONEWARE/ METAL pipe as required:- Above 25 sq. mm to 400 sq. mm	M	50.00			-
413	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 3 C x 10 Sq.mm	ST	30.00			-
414	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 10 Sq.mm	ST	30.00			-
415	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 16 Sq.mm	ST	30.00			-
416	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. End termination 4 X 25 sq. mm (28mm)	ST	5.00			-
417	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. End termination 4 X 35 sq. mm (32mm)	ST	5.00			-
418	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 50 Sq.mm	ST	15.00			-
419	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 95 Sq.mm	ST	10.00			-
420	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4 C x 185 Sq.mm	ST	5.00			-
421	Supply and making end termination with brass double compression glands and aluminium lugs for PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade of the following sizes as required:- 4C x 300 Sq.mm	ST	5.00			-
422	Supply and fixing of 36 watt T8 or 28 watt T5 lamps in existing light fixtures.	EA	5.00			-
423	Supplying and Fixing of Flood light of philips Out door type BRP 022 LED - 21 watt LED street light fittings of Philips including GI pipe for mounting the light and accessories like clamps, bolt, nut etc with testing and commissioning in all respect.	EA	2.00			-
424	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. b) 1x 18 Watt LED wall light model type 31081 4 feet long Fixture of philips surface mounted type .	EA	100.00			-
425	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. b) 1x 9 Watt LED wall light model type 31081 2feet long Fixture of philips surface mounted type .	EA	25.00			-

426	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required. <b>surface mounted. LED philips lighting Sereno LED /SP 824 P LED 29S-5000 GR OD,</b>	EA	10.00		-
427	Supply, storing, fixing, assembling, testing and commissioning of following light fixtures (Recessed/ surface/ceiling/Wall mounted) and fans complete with down rods, chain hangers, lamps, power factor improvement capacitors, ballasts etc and all necessary accessories complete as required.e) Supply, Installation of philips bulk head light fittings of CAT no FXC 101 including 11 watt CFL lamp	EA	5.00		-
428	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Recessed mounted fitting with <b>1 x 12 Watt, LED Light</b> (Make:-Philips CAT No. DN192B-LED9S-6500 PSU WH) or equivalent.	EA	100.00		-
429	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:-Recessed mounted fitting with <b>1 x 12 Watt, LED Light</b> (Make:-Philips CAT No. DN193B-LED12S-6500 PSU WH) or equivalent.	EA	50.00		-
430	Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of Recessed mounted , minimum 600 lumens LED light fitting complete as required., (Philips : Green LED Ultima Circular DN091B LED6S-6500 PSU WH orEquivalent),,	EA	20.00		-
431	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:-Surface mounted circular fitting with <b>1 x 13 Watt LED Light</b> (Make:-Philips CAT No. BBS313 1xDLED-5000 WH) or equivalent.	EA	1.00		-
432	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Recessed mounted fitting with <b>4 x 14 Watt, LED Light</b> , direct-indirect lighting luminaire with special seamlessly integrated frame and full Opal Acrylic Diffuser (OAD) (Make:-Philips CAT No. 2' x 2' LED-RC380B LED-25-6500 PSE OD WH (40W)) or equivalent	EA	100.00		-
433	Supplying & Installation of lighting fittings/ fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/ condenser/ starter /louvers/ reflector/cover etc. complete as required:- Surface mounted fitting with <b>1 x 12 Watt, LED surface Light Square (CW)</b> (Make:-Philips Square panel LED Light)	EA	10.00		-
434	Supplying and Fixing of Flood light of philips Out door type BVP161 30 watt LED street light fittings of Philips including fixing clamp ,accessories like clamps, bolt, nut etc with testing and commissioning in all respect.	EA	10.00		-
435	Retrofitting of existing recessed type light fixtures T8/T5 2X36 /40 watt by LED lamps of 2 X 18 watts of philips complete with retrofit arrangement.	EA	20.00		-
436	Retrofitting of existing recessed type light fixtures T8/T5 1 X36 /40 watt by LED lamps of 1 X 18 watts of philips complete with retrofit arrangement.	EA	10.00		-
437	Supply & fixing of Philips / Wipro / 3M , warm white colour LED light strip 5 watt per meter ,complete with power supply adppter etc.	M	10.00		-
438	Suspended type 8 ft, minimum 5400 lumen Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of suspended type 8 ft, minimum 5400 lumens LED light fitting with continuous interconnection feature, complete as required., (Regent Slash 28W or Equivalent),, Complet with suspention arrangement & clamps etc	EA	1.00		-
439	Recessed type 8 ft, minimum 5400 lumen Supplying of lighting fittings/fixtures complete with special electronics low loss ballast/ lumilux tube/ lamp/condenser/ starter/louvers/reflector/cover etc. complete as required.Supply of suspended type 8 ft, minimum 5400 lumens LED light fitting with continuous interconnection feature, complete as required., (Regent Slash 28W or Equivalent),, Complet with suspention arrangement & clamps etc	EA	1.00		-
440	Supplying and fixing of 250 mm dia exhaust fan with louvers and bird screen of PVC body in existing opening with 900 rpm (Approved make) of 250 mm dia .	EA	5.00		-
441	Supplying and fixing of exhaust fan with louvers and bird screen of PVC body in existing opening with 900 rpm (Approved make) b) 305 mm dia	EA	10.00		-
442	Supplying and fixing of 305 mm dia exhaust fan with louvers and bird screen of MS body in existing opening with 1400 rpm (Approved make) of 305 mm dia	EA	10.00		-
443	Heavy duty Exhaust fan 450 mm dia Supplying and fixing of size of exhaust fan with louvers and bird screen of Heavy duty of MS body in existing opening with 1400 rpm (Approved make) b) 450 mm dia(1400 rpm)	EA	5.00		-
444	Stainless Steel cover-Supplying and installation of following sizes 2.0 mm thick 4 way GI boxes with 2.0 mm thick Stainless Steel cover and fixing SS hardware in recess/ on surface including chasing the wall/floor complete as required. A) 200 x 200 x 50-75 mm	EA	25.00		-
445	Supply & fixing of 2 to 3 mm thick SS plates of size 300 X300 mm complete drilling the holes finishing & polishing the same	EA	5.00		-
446	Supply & laying of aluminium /GI floor race way of size 100X40 mm imbeded in floor including cutting of PCC & cover tge same with semi finish	M	10.00		-
447	Supply & laying of aluminium /GI floor race way of size 100X50 mm imbeded in floor including cutting of PCC & cover tge same with semi finish	M	10.00		-
448	Supplying and installing following size of perforated pre-painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required 150 mm width X 50 mm depth X 1.6 mm thickness.	M	10.00		-
449	Fabricating & installing perforated GI cable trays including horizontal and vertical bends, reducers, tees, cross members and other accessories as required including GI C Channe supports of 300 mm width x 50 mm depth x 2 mm thickness (/SLOTCO BEECO /RICO Steel)	M	10.00		-

450	Fabricating & installing perforated GI cable trays including horizontal and vertical bends, reducers, tees, cross members and other accessories as required including GI C Channe supports of 450 mm width x 50 mm depth x 2 mm thickness (SLOTCO BEECO /RICH Steel)	M	10.00		-
451	Providing and fixing of Fan Hook in existing Slab including cutting cement concrete and making good the same.	EA	10.00		-
452	Installation,fixing,testing,comissioning & assembling the street light 70 watt/120 Watt/ 150 watt/250/400 watt Normal OTR LED fittings complete with inter connection of blasst ,starter /iginator and lamp etc (Fittings with parts are supplied by TPDDL at site).	EA	25.00		-
453	Supply & fixing of 1-1/2 inch dia GI pipe medium class 750 mm to 1000 mm long, light fittings mounting brackets with 02 no mounting clams complete with nut bolt &washer etc	EA	50.00		-
454	Providing & installation (laying) of PVC insulated un armoured cable of 1.5 Sq mm 2 core including termination connection etc	M	200.00		-
455	Supplying and fixing Testing & commissioning with cable connection / termination of 200 mm x 160 mm x 98 mm (inner size) Pole Box made of polysterene thermoplastic having shock proof, bweather proof, rust proof, water proof (conforming to IP-65) enclosure having suitable size knock outs for cable entry in surface/recess of wall or on existing pole with 2 nos. of G.I. Clamps including 6 /10A SPMCB & 3 nos. Connectors suitable for 6/16/25 sq.mm. XLPE insulated cable for looping in and outwith branch out suitable for 2.5 sq.mm. PVC insulated wire including interconnections etc. as required.	EA	10.00		-
456	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required. 5/6 amps switch	EA	10.00		-
457	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.2 way 5/6 amps switch.	EA	10.00		-
458	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.15/16 amp switch	EA	10.00		-
459	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required. 3 pin 5/6 amp Socket.	EA	10.00		-
460	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.6 pin 15/16 amp socket outlet	EA	10.00		-
461	Supply and laying of 25 mm Dia PVC flexible conduits complete with dressing and fixing etc,	M	50.00		-
462	PVC Insulated copper Arm. Cable 1.5 SQ.MM. 2 Core Providing & Installation of PVC insulated Copper armored cable 1.5 sq. mm 2 core including termination connections etc. as required.	M	1000.00		-
463	Manual Call Box Providing & Fixing of manual call box in suitable enclosure with arrangements to raise the alarm when the glass is manually broken, complete as required	EA	25.00		-
464	Electronic Fire Hooter Providing & Fixing electronic fire hooters of 120dB sound level, suitable for mounting, complete as required.	EA	25.00		-
465	Blinking Type Smoke Detector Providing & Fixing of Blinking type Smoke Detector (Dual chamber ionisation type with mounting base, complete as required.	EA	150.00		-
466	Blinking Type Photoelectric Smoke Detector Providing & Fixing of Blinking type photo Electric type Smoke Detector with mounting base etc. complete as required.	EA	2.00		-
467	Blinking Type Fixed Temperature Heat Det Providing & Fixing of Blinking type Rate of Rise cum Fixed Temperature Heat Detector with mounting base etc. complete as required.	EA	25.00		-
468	Supplying, installing, testing and commissioning 4 zone Main Control Panel with zone indication. The panel shall include solid state circuits, battery charger, batteries etc. and fire/fault/test positions selector switches, zone isolation facility etc. complete as required.	EA	10.00		-
469	Supplying, installing, testing and commissioning 2 zone Main Control Panel with zone indication. The panel shall include solid state circuits, battery charger, batteries etc. and fire/fault/test positions selector switches, zone isolation facility etc. complete as required.	EA	10.00		-
470	Fire Detection Panel 3-6 Zones Providing, Fixing and commissioning the new fire detection panel of similar specification complete in all respect for: 3 to 6 Zone Micro-processor based fire alarm panel with made of 16 SWG CRCA Sheet with hinged front cover and acrylic sheet in the front with locking arrangement and inbuilt battery Box, comprising of Audio/visual alarm Indication of fire & fault etc, with Control panel consisting 8 bit system CPU 11.0592 MHz WDT processor, 16 X 4 line LCD display, time and date on LCD, complete with 100 event data logger with date and time stamp, optional serial direct thermal dot line printer connectivity with 48mm print width, indications for fire, fault, mains power and battery. The panel shall also contain annunciation window type indicators for fire and fault. Panel should support a) RS 485 serial communication mode for active repeater b) TCP/IP converters for centralized monitoring of the panel from any remote PC c) ATX key board support for field programming d) PA system connectivity for announcement and alerting. The panel shall contain built-in battery charger and battery space for 2 X 12V, 7Ah maintenance free battery (Exide/ Panasonic) for 6 hrs back up in normal case and 30 min back up in case of alarm. (Approved Make: Honeywell/Agni Suraksha(Dataatakex) / Safeway /System Sensor)	EA	1.00		-
471	Please consider as following : Response indicator with twin transparent LED that shall glow red in case of fire.	EA	30.00		-
472	MS galvanized boxes - used as the base of the detector installed at the ceiling	EA	40.00		-
473	Supply & fixing of MINILEC make single phase suitable up to 32 Amp auto transfer switch complete with auto / adjustable timer for auto ON/OFF one by one each AC units as per timer setting , suitable for server rooms AC units	EA	5.00		-
	<b>Total Excl. GST</b>				-
	<b>GST @18%</b>				-
	<b>Total Incl. GST</b>				-

Work is to be carried out in the areas, locations covered under various Divisions, Sub - Divisions, Sections of the WESCO Utility Circle as mentioned in the attached Annexure II. Vendors need to visit these areas / locations to understand the scope of work and get acquainted with the areas , local conditions, availability of resources etc. where works are required to be executed.

The rates finalised for the Circle shall be applicable to all the works covered under Divisions, Sub - Divisions, Sections of the Circle.

**ANNEXURE II AREAS UNDER DIFFERENT CIRCLES**

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<b>Bargarh Circle :Demograhy</b>				
<b>Sl. No</b>	<b>Circle</b>	<b>Division</b>	<b>Sub-Division</b>	<b>Section</b>
1	<b>BARGARH</b>	<b>BARGARH ELECTRICAL DIVISION, BARGARH</b>	SDO-I, Bargarh	ESO, No. I, Bargarh
2				ESO, No.II, Bargarh
3				ESO, No.III, Bargarh
4				ESO, No.IV, Bargarh
5			SDO-II, Bargarh	ESO, Barhaguda
6				ESO, Turunga (Ambapali)
7				ESO, Tora
8			SDO, Attabira	ESO, Godbhaga
9				ESO, No.I, Attabira
10				ESO, No.II, Attabira
11				ESO, Larambha
12				ESO, Rengali Camp
13				ESO, Bhatli
14				ESO, Bhukta
15			SDO, Bheden	ESO, Bheden
16				ESO, Thuapalli
17				ESO, Khuntlipalli
18		<b>BARGARH WEST ELECTRICAL DIVISION, BARGARH</b>	SDO, Barpali	ESO, No.I, Barpali
19				ESO, No.II, Barpali
20				ESO, No.III, Barpali
21			SDO, Padampur	ESO, No.I Padampur
22				ESO, No.II, Padampur
23				ESO, Gaisilet
24				ESO, Melchhamunda
25			SDO, Paikmal	ESO, Paikmal
26				ESO, Jharbandh
27			SDO, Sohela	ESO, No.I, Sohela
28				ESO, No.II, Sohela
29				ESO, No.I, Bijepur
30				ESO, No.II, Bijepur
31				ESO, Ghenss

Rourkela Circle : Demograh					
Sl. No	Circle	Division	Sub-Division	Section	
1	ROURKELA	ROURKELA ELECTRICAL DIVISION, ROURKELA	SDO No.II, Rourkela	ESO, Uditnagar, Rourkela	
2				ESO, Power House Road, Rourkela	
3				ESO, Main Road, Rourkela	
4				ESO, Bisra Road, Rourkela	
5			SDO No.III, Rourkela	ESO, No.I, Basanti Nagar, Rourkela	
6				ESO, No.II Basanti Nagar, Rourkela	
7				ESO, No.III, Gopabandhupalli, Rourkela (Madhusudanpali)	
8				SDO No.IV, Koelnagar, Rourkela	ESO, No.I, Shakti Nagar, Rourkela
9					ESO, No.II, Koel Nagar, Rourkela
10					ESO, No.III, Jhirpani, Rourkela
11			SDO, No.VI, Bisra, Rourkela	ESO, Nayabazar, Rourkela	
12				ESO, Bondhamunda	
13				ESO, Bisra, Rourkela	
14			ROURKELA SADAR ELECTRICAL DIVISION, ROURKELA	SDO No.I, Industrial Estate, Rourkela	ESO, Civil Township, Rourkela
15		ESO, Industrial Estate, Rourkela			
16		ESO, Chhend, Rourkela			
17		ESO, Kalinga Vihar, Rourkela			
18		SDO-V, Rourkela		ESO, Panposh	
19				ESO, Lathikata	
20				ESO, Jalda, Rourkela	
21		SDO, Bonai		ESO, Lahunipara	
22				ESO, Bonai	
23				ESO, Koira	
24			ESO, Mahuldiha		
25		RAJANGPUR ELECTRICAL DIVISION, RAJANGPUR	SDO, Rajgangpur-I	ESO, No.I, Rajgangpur	
26				ESO, No.II, Rajgangpur	
27				ESO, Kansbahal	
28			SDO, Rajgangpur-II	ESO, No.III, Rajgangpur	
29				ESO, Bargaon	
30				ESO, Kutra	
31			SDO, Kalunga	ESO-I, Kalunga	
32				ESO-II, Kalunga	
33			SDO, Kuarmunda	ESO, Biramitrapur	
34		ESO, Kuanmunda			
35		ESO, Hatibari, Rajgangpur			
36		SUNDARGARH ELECTRICAL DIVISION, SUNDARGARH	SDO, Sundargarh	ESO, No.I, Sundargarh	
37				ESO, No.II, Sundargarh	
38				ESO, Majhapara	
39				ESO, Subdega	
40			ESO, Bedabahal		
41			SDO, Ujjalpur	ESO, Ujjalpur	
42		ESO, Sargipalli			
43		ESO, Hengiri			
44		ESO, Lephripada			
45		ESO, Gopalpur			

<b>Bolangir Circle : Demograhly</b>					
<b>Sl. No</b>	<b>Circle</b>	<b>Division</b>	<b>Sub-Division</b>	<b>Section</b>	
1	<b>BOLANGIR</b>	<b>BOLANGIR ELECTRICAL DIVISION, BOLANGIR</b>	SDO-I, Bolangir	ESO-I, Bolangir	
2				ESO-II, Bolangir	
3				ESO.III, Bolangir	
4				ESO.IV, Bolangir	
5			SDO-II, Bolangir	ESO, Chudapalli	
6				ESO, Chhattamakkan	
7				ESO, RE Bolangir	
8				ESO, Loisingha	
9			SDO, Loisingha	ESO, Salebhata	
10				ESO, Agalpur	
11			SDO, Tusura	ESO, Tusura	
12				ESO, Deogaon	
13		<b>SONEPUR ELECTRICAL DIVISION, SONEPUR</b>	SDO, Binka	ESO, Rampur	
14				ESO, Mahadevpalli	
15				ESO, Binka	
16				ESO, Cherupali	
17			SDO, Biramaharajpur	ESO, Subalaya	
18				ESO, Biramaharajpur	
19				ESO, Ulunda	
20			SDO, Sonapur	ESO, Sonapur	
21				ESO, Khari	
22				ESO, Tarva	
23		<b>TITILAGARH ELECTRICAL DIVISION, TITILAGARH</b>	SDO, Titilagarh	ESO, No.I, Titilagarh	
24				ESO, No.II, Titilagarh	
25				ESO, No.III, Titilagarh	
26				ESO, Sindheikela	
27			SDO, Kantabanji	ESO, Kantabanji	
28				ESO, Tureikela	
29			SDO, Patnagarh	ESO, Muribahal	
30				ESO-I, Patnagarh	
31				ESO-II, Patnagarh	
32				ESO No.III, Patnagarh	
33				ESO, Belpada	
34			SDO, Sainatala	ESO, Khaprakhol	
35				ESO, Belgaon	
					ESO, Sainatala

Sambalpur Circle : Demograh				
Sl. No	Circle	Division	Sub-Division	Section
1	SAMBALPUR	SED Sambalpur	SDO-I, Sambalpur (Ainthapali)	ESO, RE Ainthapali, Sambalpur
2				ESO, Ainthapali
3				ESO, Baraipali
4				ESO, Hospital Road, Sambalpur
5			SDO-II, Sambalpur (Khetrajpur)	ESO, Balibandh
6				ESO, Badabazar
7				ESO, Khetrajpur
8				ESO, PHD Sambalpur
9				ESO, No.I, Burla
10				ESO, No.II., Section, Burla
11			SDO, Burla	ESO, No.III., Section, Burla
12				ESO, Hirakud
13			SDO, Hirakud	ESO, Gosala
14				ESO, RE Hirakud
15				ESO, Chiplima
16		SEED, Sambalpur	SDO-I Bhutapada, SEED, Sambalpur	ESO, Sakhipara
17				ESO, Golbazar
18				ESO, Commissioner Colony, Sambalpur
19			SDO, Dhanupalli, SEED, Sambalpur	ESO, Brookshill
20				ESO, Padiabahal
21				ESO, Maneswar
22			SDO, Rairakhol	ESO, Dhama
23				ESO, Dhanupalli
24				ESO, Sahashpur
25			SDO, Rengali	ESO, Rairakhol
26				ESO, Hatibari
27				ESO, Naktideul
28		ESO, Rengali		
29		JED, Jhasuguda	SDO, Jharsuguda-I	ESO, Laida
30				ESO, Sasan
31				ESO, Paramanpur
32			SDO, Jharsuguda-II	ESO, Beheramal JED-1
33				ESO, Pahadi JED-2
34				ESO, Kacheri Road JED-3
35				ESO, Bagdihi
36				ESO, Janda Chowk
37				ESO, Sarbahal
38			SDO, Kuchinda	ESO, Sahapada
39				ESO, Raghunathpali
40				ESO, Laikera
41				ESO, Kuchinda
42				ESO, Kesaibahal
43				ESO, Bamra
44		SDO, Brajrajnagar	ESO, Jamankira	
45			ESO, Kusumi	
46			ESO, Brajrajnagar	
47		SDO, Belpahar	ESO, Lamptibahal	
48			ESO, Gandhi Chowk	
49			ESO, Belpahar	
50			ESO, Gumadera	
51		DED, Deogarh	ESO, Panchgaon	
52			ESO, Bandhbahal	
53			ESO, Deogarh	
54			ESO, Barkote	
55			ESO, Riamal	
56			ESO, Budhupal	
57		ESO, Tileibani		

Kalahandi Circle : Demograh					
Sl. No	Circle	Division	Sub-Division	Section	
1	KALAHANDI	KEED, Bhawanipatna	SDO No.I, Bhawanipatna	ESO No.I, Bhawanipatna	
2				ESO No.IV, Bhawanipatna	
3			SDO No.II, Bhawanipatna	ESO No.II, Bhawanipatna	
4				ESO No.III, Bhawanipatna	
5			SDO, Kesinga		ESO, Kesinga
6					ESO, Utkela
7					ESO, Borda
8					ESO, Nunmath
9			SDO, Narla		ESO, Narla
10					ESO, Biswanathpur
11					ESO, M.Rampur
12					ESO, Chhatiguda
13					ESO, Madanpur
14		KWED, Bhawanipatna	SDO, Junagarh	ESO, No.I, Junagarh	
15				ESO, No.II, Junagarh	
16				ESO, No.III, Junagarh	
17				ESO, Kalampur	
18			SDO, Dharamgarh	ESO, Golamunda	
19				ESO, No.I, Dharamgarh	
20				ESO, No.II, Dharamgarh	
21			SDO, Chharbahal		ESO, Chharbahal
22					ESO, Jaypatna
23					ESO, Koksara
24		ESO, Badkutru			
25		NED, Nuapada	SDO, Nuapada	ESO, Nuapada	
26				ESO, Komna	
27				ESO, Lakhana	
28			SDO, Khariar		ESO, No.I, Khariar
29					ESO, No.II, Khariar
30					ESO, Boden
31					ESO, Sinapalli
32			SDO, Khariar Road		ESO, No.I, Khariar Road
33					ESO, No.II, Khariar Road



**ANNEXURE VII COMMERCIAL TERMS & CONDITIONS**

CONFIDENTIAL

TPCODM/SA/O/ W040	THE TATA POWER COMPANY LIMITED TERMS AND CONDITIONS OF CONTRACT	
	Rate Contract for General Civil Works at Various Circles of Wesco Utility	

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TPCODM/SA/O/ W040	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
Rate Contract for General Civil Works at Various Circles of Wesco Utility		

## TERMS & CONDITIONS OF CONTRACT

### 1. SCOPE OF WORK:

- 1.1 The scope of work under this Contract includes all activities required to complete the Works in accordance with the Specifications, drawings & BOQ which are part of Contract.
- 1.2 Supply of all resources inclusive of, but not limited to, men, materials and machinery, equipment, tools & tackles, scaffolding, formwork, consumables, all enabling activities etc., complete required for above works at each and every stage in time, to adhere to the completion date are included in scope of work unless otherwise specifically stated elsewhere in this agreement.
- 1.3 All temporary facilities required for the Works like site office, stores, employee welfare facilities, labour accommodation & transportation etc are in Contractor's scope of work.
- 1.4 The entire scope of Contract Works shall be carried out strictly in accordance with the true intent and meaning of the scope of Contract Works, specifications, drawings and BOQ taken together, so that the Contract Works when completed are fit for the intended purposes. All documents comprising the scope of Contract Works and all parts of each of these documents or document mentioned therein are supplementary and complimentary to each other and shall be construed accordingly.

### 2. COORDINATION WITH OTHER CONTRACTORS:

Contractor shall be required to co-operate and co-ordinate with the other Contractors and/or Subcontractor's working simultaneously at Site at the same premises, and shall maintain harmonious and cordial relations at all times. There shall be no exclusive access for the Contract works, a proper coordination is required from other trade works. Contractor shall take necessary steps to ensure that the equipment and works of Owner, third parties, other contractors including other utility services like water supply pipeline, telephone cables etc. are not damaged during execution of Contract Works or otherwise by Contractor or Contractor's employees, subcontractors, suppliers etc. Contractor shall be responsible for all such damages and shall have to repair/replace and/or compensate for such damages at its own cost and indemnify the Owner for any losses suffered by the Contractor as a result of such damages caused by the Contractor.

### 3. TIME OF COMPLETION:

Time is of the essence in this Contract. The Rate Contract shall remain valid for a period of One Year from the date of award of work. Based on the Rate Contract and as per requirement, Work Orders shall be issued on as and when required basis.

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The starting and completion date of the Work in all respects shall be as per the construction schedule provided elsewhere in the Contract. The Contractor shall strictly adhere to the program and the Owner's representative(s) shall review the same periodically.

Contractor shall start his mobilization activities within 7 working days from the date of this agreement/Notice to proceed and intimate the progress to Owner's representative time to time.

**4. COMPLETION OF THE WORKS:**

Completion of the works shall be on the issuance of a Completion Certificate by the Owner to the Contractor. Following minimum criteria shall be fulfilled before issuance of completion certificate.

4.1 Completion Criteria

4.1.1 The Contract Works shall be Complete when the following criteria have been satisfied:

- i) Completion of the Works and successful completion of all tests to the satisfaction of Owner in accordance the scope, technical specifications and Contract documents
- ii) Rectification of all punch list items and certification of the same by Owner
- iii) Submission of all As-Built Drawings

**5. CONFIDENTIALITY:**

Contractor shall not, without the previous written consent of Owner's representative, use, copy, publish, disclose or otherwise deal with, nor cause nor permit its sub-contractors, agents, employees, directors, advisors or any persons for whom it is contractually or otherwise responsible for, to use, copy, publish, disclose or otherwise deal with any confidential information, otherwise than for the performance of its obligations under the under the Contract, disclosure to advisors or otherwise as required under the applicable laws or local laws.

**6. CODES AND STANDARDS:**

The work shall be carried out as per the specifications laid down by the consultant. In the absence of the relevant code of practices also, the instructions of the authorized Owner's Representatives and or standard engineering practice shall be adopted. In case of contradictions/conflicts between the specifications, the interpretation of the Owner's representative shall be final and binding on both parties.

**7. PRICE & PAYMENT TERMS:**

7.1 **Price:** The agreed Contract Price and rates as per the price schedule given elsewhere in Contract shall remain fixed till the completion of works.

7.2 **Payment Terms**

- i) Monthly running bill shall be paid based on actual completion of work at site duly certified by Engineer in charge.

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- ii) Retention: 10% of the gross value of each Running account (RA) shall be retained as retention money. This retention money shall be released after satisfactory completion of defect liability period.
- iii) Income tax and any other statutory recoveries as applicable shall be recovered from Contractor monthly running bills and TDS certificate for the deductions shall be furnished.
- iv) All payments shall be made by the Owner to the Contractor within 90 days from the date of receipt of Contractor's error free invoice along with all the back-up documents complete in all respects.
- v) All payments are subject to signing of Contract Agreement and submission of an unconditional EMD cum Contract Performance bank guarantee.

**7.3** Where mode of measurement is not specified in Contract documents/specification, the measurements will be taken at site as per relevant I.S. Code of Practice for Measurements.

**7.4** The Owner/Owner's representative may from time to time intimate to the Contractor that they require the works to be measured and the Contractor shall attend or send a qualified agent to assist the Owner's representative in taking such measurements and calculations and to furnish all particulars or to give all assistance required by either of them. The Contractor shall give all assistance for taking measurements like steel measuring tapes, scaffolds, ladder and including surveyors with surveying instruments for checking and confirming levels.

**7.5** The final bill shall be submitted by the Contractor within 45 days of the date of the certificate of completion furnished by the Owner, otherwise Owner's representative's certificate of the measurement and the total amount payable for the work accordingly shall be final and binding on all parties.

**8. EXTRA/DEVIATED ITEMS:**

**8.1** No extra item shall be carried out without the prior approval from the Owner in writing. Any change in the specification/design resulting in additional expenditure shall be carried out only with the prior approval of the Owner in writing.

**8.2** Extra items approved by Owner shall be paid on the basis of vouchers of cost of materials and labour produced by the Contractor. Vouchers produced for materials, labour, machinery etc. shall be accepted only if such vouchers are as per the prevailing market rates. The Contractor shall be paid 20 percent of the cost of materials, labour and operation of plant and machinery etc. required to execute the item, towards his profit and overhead charges. For such extra work, the Contractor shall maintain time sheets of personnel engaged and machinery used for execution of same and get them certified by the Owner. Only such labour and plant cost based on above records, which in the opinion of the Owner is justified, shall be taken into account to determine the extra item rate.

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## 9. TAXES & DUTIES:

- 9.1 The price quoted by Contractor and as mentioned in the schedule of price shall be inclusive of all taxes, Octroi, statutory clearances, duties, levies etc. Complete for each item. The tax component (CGST, SGST & IGST) shall be shown separately in price breakup.
- 9.2 Contractor shall submit an Income Tax Clearance certificate from the Income Tax department for the period including the past three (3) years.
- 9.3 Contractor shall provide a valid Provident Fund registration number; GST registration numbers and evidence of the same shall be enclosed.
- 9.4 Failure to submit the evidence for the above will entitle the Owner to deduct appropriate tax liability values, Provident Fund values at the applicable rates from approved billing values. Such deductions shall not be refundable to the Contractor.
- 9.5 The tax invoices shall contain the details to comply with the GST Law. The Contractor shall:
- i) Furnish (electronically) and communicate to the Owner, the details of Goods or Services supplied by the 10th of the month succeeding the said tax period,
  - ii) Upon discovery of any discrepancy, rectify it and shall pay the tax and interest thereof,
  - iii) Furnish the returns (electronically), for the inward and outward supplies of Goods and/or Services, before the specified dates as per the GST Law,
  - iv) Communicate the tax paid, credits etc. as and when credited.
  - v) The Invoice should clearly state the description of the goods, quantity, sale price, tax %, and tax amount;
  - vi) The Invoice should be signed by an Authorized Signatory.

Bills/Invoices in the name of The Tata Power Company Ltd. with packing lists in triplicate shall be forwarded along with the equipment.

Contractor to furnish GST Registration no. in all invoices as well as Purchaser's (Tata Power's) GST number.

### 9.5 Variation in Tax or Applicable Taxes or Introduction of New Taxes

- i) Any statutory variation in rate of applicable Indian taxes, duties, levies etc., any variation in applicable taxes or interpretation/enforcement of the same or introduction of new taxes or the introduction/amendment of any exemptions (other than Direct taxes i.e. Income Tax, corporate tax etc), levied in India, starting from 2 (two) Days prior to the Closing Date for submission of Bid but within the Guaranteed Completion Date of Works, shall be to the account of the OWNER/PROJECT MANAGER. Such adjustment shall be limited to direct transactions between the OWNER/PROJECT MANAGER and the

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Contractor and no amounts shall be payable on account of variation on taxes, duties and levies between the Contractor and its sub vendors/Sub-contractors/suppliers.

- ii) Any statutory variation on account of aforementioned factors shall be reimbursed by OWNER/PROJECT MANAGER to Contractor or by the Contractor to the OWNER/PROJECT MANAGER, as the case may be, against submission of documentary evidence in support thereof. However, in case of delay, from the originally prepared network Schedule, Schedule and Guaranteed Completion Dates as may be relevant for the computation thereof, due to reasons not attributable to the OWNER/PROJECT MANAGER, any statutory variation adverse to the OWNER/PROJECT MANAGER over and above those specified under “Schedule of Quantity and Rates” as given elsewhere in the Contract, including any taxes during the delayed period shall be to the Contractor’s account and the OWNER/PROJECT MANAGER shall not be liable for the same in any manner whatsoever.
- iii) The Contractor is obligated to keep the OWNER/PROJECT MANAGER/OWNER’s Representative notified of the aforesaid statutory variations within 15(fifteen) days of such variation coming into effect.

**10. LABOUR LAWS & INDEMNIFICATION:**

10.1 All employees and personnel engaged by the Contractor and approved sub-contractors shall be the employees of the Contractor or such approved sub-contractors, as the case may be and shall not, under any circumstances, be deemed to be the employees or agents or contractors of the Owner. Contractor shall comply with all the applicable laws, including labour related laws of the State Government, Central Government and local authorities as applicable to the place of work. All records to be maintained under these laws shall be maintained by Contractor and produced to the concerned authorities and the Owner as and when directed to do so. No extra payment will be made by the Owner to comply with such laws.

Contractor shall bear the entire responsibility, liability and risk relating to coverage of his workforce under different statutory regulations including Workmen’s Compensation Act, The Employees Provident Fund Act, The Employees State Insurance Act, Factories Act 1948, the Contract labour Regulation Act 1970 and any other relevant regulations as applicable.

Contractor shall be solely responsible for the payment of all employee and worker related benefits such as provident fund, bonus etc as applicable as per the various statutory regulations and shall keep Owner indemnified in this regard against any claim by its employees or workmen or sub-contractors.

[10.2 The Contractor shall be fully responsible for the due compliance by him and his sub-contractors with all statutory requirements and with all applicable labour laws including Contract Labour Abolition and Regulation Act, Workmen’s Compensation Act, P.F./E.S.I., Labour welfare fund, Act as may be applicable to the Contractor, the sub-contractors and their employees. The Contractor shall fully indemnify and save harmless the Owner from and against all claims, demands, expenses, losses, liabilities, charges, actions, suits and

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proceedings whatsoever including claims under aforesaid Acts and laws which may be brought or made against the Owner, its Officers or servants by reason or in consequence of any matter or thing done or omitted to be done by the Contractor and/ or its sub-contractors and all costs, charges and expenses which may become payable by the Owner in respect thereof.

- 10.3 Contractor shall fully indemnify, save harmless and defend the Owner & its Representative/s from and against any and all claims, including reasonable legal costs, (collectively the “Damages”), including by third parties in respect of death or bodily injury or in respect to loss or damage to any property (other than the Works, Plant or part thereof not yet taken over) which arises out of or in consequence of the Services whilst the Contractor has responsibility for the care of the Works to the extent resulting from Contractor’s or any Sub-Contractor’s or their agents or employees act, negligence, or strict liability or omission in the performance of the Services hereunder; provided that the foregoing obligation shall not apply to the extent such damages are caused by the intentional acts or omissions of the Owner or Owner’s representative/s.

**11. QUANTITIES:**

- 11.1 The quantities against various items of work furnished in the Schedule of Quantities are only approximate and are based on preliminary designs. They are meant only for the purpose of having a common base of comparison of various tenders. Prices and rates quoted shall be firm for a variation in the total Contract price by  $\pm 25\%$  (plus or minus twenty five percent) with the provision that quantity of individual items of work may vary to any extent. No additional financial compensation will be payable in this regard. BIDDER shall furnish percentage extra/rebate over the Contract Price in case variation in the contract price exceeds  $\pm 25\%$ . In case BIDDER does not specify this, the quoted price shall be deemed to remain unaltered for any variation beyond  $\pm 25\%$ . No extension of time will be granted in case of increase /decrease of quantities/Contract Price beyond  $\pm 25\%$  due to additional quantities of work to any extent for any or all items of work.
- 11.2 The quantities of the various kinds of work to be done and materials to be furnished under this Contract which have been estimated and are set forth in the proposal or the Agreement or the Schedule of Quantities and Rates are the best available, but may not be accurate in any or all particulars and are only for the purpose of comparing on a uniform basis the bids offered for the work under this Contract
- 11.3 The CONTRACTOR agrees that neither the OWNER/PROJECT MANAGER nor the ENGINEER nor any of the employees or agents thereof shall be held responsible if any of the said estimated quantities should be found to be not even approximately correct in the construction of the work and that he will not at any time dispute or complain of such statement nor assert that there was any misunderstanding in regard to the character, size and type of work to be done or the kind or amount of the materials to be furnished or work to be done. Further, the CONTRACTOR shall make no claim for anticipated

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profits, for loss of profit or for damage because of a difference between the quantities of the various kinds of work to be done or materials actually delivered and the estimated quantities set forth by the OWNER/PROJECT MANAGER or the ENGINEER

- 11.4 The rates/prices quoted by the CONTRACTOR in the schedule of rates/prices shall be fixed irrespective of any variation in the quantities of individual items of work and/or in the total Contract Price unless otherwise specified in the Contract.

## 12. RISK AND INSURANCE:

- 12.1 Contractor shall maintain with respect to the Work to be done under the Contract, in each applicable jurisdiction, all statutory insurance benefits and other insurances required by law.

Contractor shall be responsible for suitably insuring his entire work force , tools, plant, third party liability at the project site, all risk comprehensive insurance including CAR policy for entire Works under the Contract and any such risk, till the works are complete and handed over. Copies of all such insurances shall be submitted by Contractor to Owner's representative for review. Owner shall be fully indemnified in this respect.

- 12.2 **Liability Limitation:** The Contractor's total liability to the Owner for all matters under or arising out of this Contract, other than the Excluded Matters, is limited to 100% of the Total Contract Value in aggregate. For the purpose of this clause 12.2, "Excluded Matters" shall mean liabilities arising on the Contractor on account of fraud, willful default, reckless misconduct by the Contractor or any regulatory penalties / third party claims that are made on the Owner on account of a breach of this Contract by the Contractor.

## 13. MATERIAL STORAGE, LABOUR ACCOMMODATION AND PROTECTION OF THE WORKS:

- 13.1 Contractor shall take all necessary steps to protect the Contract Works until fully taken over by the Owner. Completion shall be acknowledged by the issuance of a Completion Certificate issued by the Owner.
- 13.2 If available at site, space for material storage may be provided to Contractor, otherwise Contractor to arrange separately for the storage of materials at his own cost.
- 13.3 Contractor shall make all necessary arrangements for the accommodation of Contractor's labourers and personnel outside the site at no cost to the Owner.
- 13.4 Contractor shall make all necessary arrangements for transporting labours and workers from the accommodation to the work place at no charge to the Owner.

## 14. CONSTRUCTION WATER , POWER AND STAGING:

- 14.1 Water and Electricity required for the execution of the works shall be aranged by the Contractor at his own cost.

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14.2 It shall be ensured by the CONTRACTOR that work shall proceed uninterrupted even in the event of power failures with the help of DG Sets and Diesel compressors. As such, adequate number of diesel operated machinery (such as boring rigs, concrete mixers, vibrators, welding sets, etc.) shall be provided by the CONTRACTOR at its cost as an alternative arrangement in case electrically operated machinery are proposed to be brought to site.

14.3 Necessary scaffolding for the work is in the scope of the Contractor.

**15. SAFETY & QUALITY:**

**15.1 SAFETY RULES & REGULATIONS**

15.1.1 Contractor shall abide by Safety Terms & conditions policy of Tata Power as mentioned in clause 15.3 below. Also Contractor and his personnel shall follow all safety standards, specifications and practices in construction as per applicable laws and also as instructed by Owner's Safety In charge. Any violation shall attract penalty as determined by the Owner. All safety appliances and personal protective equipment required such as, but not limited to, safety helmets, safety footwear, safety belts, goggles, hand gloves etc. shall be arranged by Contractor at Contractor's cost. All Contractor works shall be monitored by the Safety engineer of the Owner. If the Owner is aware of any non compliance thereto, then the Owner will not only be entitled to make alternate arrangements for the same but also recover costs and damages for the same plus the Owner's own charges as deemed fit by the Owner.

Contractor and all Contractors' personnel shall abide by all safety standards, specifications and practices in construction and also as instructed by Owner's representative. Contractor is responsible for the safety of Contractor's staff and workmen. Contractor shall be subject to Safety audit at regular intervals.

15.1.2 Contractor shall indemnify the Owner against all claims, proceedings, legal actions etc whatsoever which arise due to Contractor's failure of following safety rules & regulations as mentioned above.

15.1.3 Contractor shall engage Tata Power Skill Development Institute (TPSDI) certified labour force at the site for execution of the job. Requirement & fees for TPSDI certification shall be as per Company Policy.

**15.2 QUALITY OF THE WORKS**

15.2.1 The works carried out by the Contractor shall be of best quality as per industry standard and specifications issued by the Owner. Wherever required, Contractor shall submit relevant test certificates for the materials/equipment/machinery/tools supplied/usage. If in any case the material used by the Contractor for the intended work is found

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defective, then the Contractor must replace the materials within 7 days of such defect notice. If the Works carried out by Contractor are not as per specification or relevant standards, the same shall be entrusted to some other agency at Contractor's risk and cost. The Contractor shall deploy sufficient numbers of dedicated full time quality assurance/quality control engineers at work place.

**15.3 TOTAL COMPLIANCE TO SAFETY TERMS & CONDITIONS:**

The Contractor shall abide and comply with Owner's Safety Terms & Conditions, Sustainability and TCOC manuals / documents as enclosed, in totality.

**15.4 AFFIRMATIVE ACTION:** The Owner recognizes that diversity in the workplace positively impacts business. The Owner commits itself in helping people from SC/ST background either by helping them to become entrepreneurs or by engaging workforce from SC/ST community under the contracts agreed herein. To encourage engaging SC/ST community, the owner may agree to incentivize the Contractor by paying additional 1% of the contract value, if the number of SC/ST workforce engaged in the contract exceeds 30% of the total deployed strength and 2%, if the strength goes beyond 50%. While the Contractor will assist the workforce so engaged to become self-reliant in meeting the work expectation, the Owner will also volunteer its training resources to the extent possible to improve their employability. The Contractor shall maintain the proper documentation of such category of the workforce engaged and the owner shall pay the incentive after its verification.

**16. SERVICES AND FACILITIES BY THE OWNER/PROJECT MANAGER:**

The following facilities and services will be provided by the OWNER/PROJECT MANAGER to the Contractor:

- i) Only a base line and one permanent benchmark would be furnished to the Contractor near the site. Surveying and laying out of all works shall be in Contractor's scope. Contractor shall maintain without disturbance during the course of execution of the work the reference line and the workbench mark.
- ii) The Owner will hand over to the Contractor within one week from the date of issue of Letter of Intent some areas, as available at site to enable Contractor to make arrangements for stores, site office, etc. at his own cost. If space provided for storage facilities is not sufficient, the Contractor has to make his own arrangement for space at his own cost outside the plant.

**17. CONTRACTOR'S PERSONNEL:**

Contractor shall engage a Project Manager at site at all times who will be single point of contact for the Works. Contractor shall also engage qualified & experienced Engineers &

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supervisors at site at all times. Contractor shall also engage a separate Safety officer and Quality incharge and adequate safety stewards for the entire duration of Contract.

**18. PROGRESS OF WORK:**

- 18.1 Within 7 days upon award, the Contractor shall submit an detailed Contract Works program containing all the important milestones in the project to the Owner for approval. The work program shall fulfill the time requirements as stipulated elsewhere in Contract. Such program shall be supported with details of resource deployment.
- 18.2 Contractor has to provide weekly and monthly progress report and progress photographs to the Owner. Contractor shall also submit a resources schedule to the Owner and augment the workforce of equipment as and when required to attain requisite progress of works without any extra cost to Owner.

**19. WORK IN MONSOON & DEWATERING:**

- 19.1 The construction and erection work may entail working in monsoon also. The CONTRACTOR must maintain a minimum labour force as may be required for the job and plan and execute the construction and erection during monsoon according to the prescribed schedule. No extra rate will be considered for such work in monsoon. During monsoon and other period it shall be the responsibility of the Contractor to keep the construction site free from accumulating of water, at his own cost.
- 19.2 During inclement weather, rains, CONTRACTOR shall suspend concreting for such time as the Owner may direct and shall protect from damage all works already in progress or completed just then. All such temporary protective measures shall be at Contractor's cost and any damage to works shall be made good by the Contractor at his own expense.

**20. DELAYS AND EXTENSION OF TIME:**

- 20.1 The time allowed for carrying out the work as mentioned in the Contract shall be strictly observed by the Contractor.
- 20.2 If the Contractor shall desire an extension of time for completion of work on the grounds of his having been unavoidably hindered in its execution or any other ground, he shall apply in writing to the Owner within 5 days of the date of hindrance on account of which he desires such extension as aforesaid. This application must be accompanied by sufficient documentation giving reasons for seeking such extension. No application for such extension shall be entertained if it is not received in sufficient time to allow the Owner to consider it and the Contractor shall be responsible for the consequences arising out of such negligence. Upon receipt, Owner may accept or reject such application.

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In the event of a disruption (other than suspension by Owner) to the Schedule and if in the opinion of Contractor it is not the responsibility of Contractor or its any Sub-contractor and which might have been caused due to action of any third parties which CONTRACTOR might not have reasonably prevented, and that Contract entitles Contractor to time extension and/ or other relief from Owner, the Contractor shall notify the Owner within twenty four (24) hours and provide a written report (to the best of Contractor's knowledge at the time) of the disruption within 72 (Seventy Two) Hours of Contractor's learning of the disruption and such report shall be supplemented on a prudent, informative and timely basis thereafter not later than 14 (Fourteen) Days from the date of Contractor's first learning of such disruption. In such an event the Contractor may modify and resubmit for approval to Owner, computer based network schedule and modifications if any required to the Schedule. Upon receipt, Owner shall take reasonable action in accordance with the Contract.

Contractor in any case has to inform to Owner immediately upon learning of any possible hindrances to the Works which have caused or may cause delay or other impact to the Works to enable Owner take suitable action.

- 20.3 The OWNER/PROJECT MANAGER shall have the right to order discontinuance/suspension of the work, in whole or in part, for such time as may be necessary in the opinion of OWNER. In such an event, the OWNER/PROJECT MANAGER will grant such extension of time for completion of the Contract which in its opinion is proper and/or other relief in accordance with Contract in consequence of such delay.

## 21. LIQUIDATED DAMAGE:

In the event that the works are delayed beyond the interim milestone completion date / contractual completion date, Liquidated damage to the extent of 1% of the contract value per week of delay or part thereof shall be levied, subject to a maximum of 10 % of the total contract value.

## 22. STEP IN PROVISION:

- 22.1 Should the progress or quality of the works be found to be persistently lesser than that required to complete the works by the Completion Date, following due notification to the Contractor of such progress deficiencies, Owner reserves the right to:
- a) Supplement the resources of the Contractor at Contractor's cost
  - b) Remove a part of, or all remaining works from, the Contractor's scope and have the works completed by others at Contractor's risk and cost.
- 22.2 The Owner shall incur no cost greater than the Contract value in supplementing the Contractor, or completing the works by other means. All cost beyond that of the Contract value shall be borne by the Contractor.

## 23. ASSIGNMENT & SUBCONTRACTING:

Contractor shall not assign or subcontract in part or otherwise any portion of this Contract without prior written approval of Owner.

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**24. DEFECTS & WARRANTY:**

Contractor is responsible for defects in the Works for a period of 12 (Twelve) months from the date of Issuance of the Completion certificate issued by the Owner/Project Manager to the Contractor for the Works.

**25. TERMINATION OF CONTRACT:**

If the Contractor (being an individual or a firm) commit any 'Act of Insolvency', or shall be adjudged as insolvent, or shall make an assignment or composition for the greater part in number or amount of his creditors, or shall enter into a Deed of Assignment with his creditors, or (being an Incorporated Company) shall have an order made against him or pass an effective Resolution for winding up either compulsorily or subject to the supervision of the Court or voluntarily, or if the Official Assignee of the Contractor shall repudiate the Contract, or if the Contractor shall assign or sublet the Contract without the consent in writing of the Owner first obtained, or if the Owner's representative shall certify in writing to the Owner that in his opinion the Contractor,

- i. Has abandoned the Contract, or
- ii. Has failed to commence the works, or has, without any lawful excuse under these conditions suspended the progress of the works for fourteen days after receiving from the Owner written notice to proceed, or
- iii. Has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or
- iv. Has neglected or failed persistently to observe and perform all or any of the acts, matters or things required by this Contract to be observed and performed by the Contractor for seven days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same, or

Then and in any of the said causes the OWNER/PROJECT MANAGER with the written consent of the ENGINEER may, notwithstanding any previous waiver, after giving seven days notice in writing to the Contractor, terminate the Contract. Notwithstanding any such termination, the Contractor shall continue to be responsible for all liabilities that have accrued under this Contract prior to the date of such termination. And further, the OWNER/PROJECT MANAGER with the consent of the ENGINEER by his agents or servants may enter upon and take possession of the works and all plant, tools, scaffolding, sheds, machinery, steam and other power, utensil and materials, lying upon premises or the adjoining lands or roads, and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other Contractor's or other persons or person to complete the works and the Contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other Contractor or

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other person or persons employed for completing and finishing or using the materials and plant for the works.

The Owner shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to the Contractor by the Owner, for the value of the said plant and materials so taken possession of by the Owner, and the expense or loss which the Owner shall have been put to in getting the works to be so completed, and the amount, if any owing to the Contractor and the amount which shall be so certified shall, thereupon, be paid by the Owner to the Contractor or by the Contractor to the Owner as the case may be, and the certificate of the Owner shall be final and conclusive between the parties.

## 26. DISPUTES & ARBITRATION:

- 26.1 In case any dispute or difference shall arise between the OWNER/PROJECT MANAGER or the ENGINEER on his behalf and the CONTRACTOR arising out of or in relation to or concerning this Contract or the construction, meaning, operation or effect hereof or of any clause herein contained or as to the rights, duties or liabilities of the parties hereto respectively or of the ENGINEER under or by virtue of these presents or otherwise or in connection with the subject matter of these presents or arising out of or in relation thereto (except as to matters left to the sole discretion of the ENGINEER) the same shall be referred to the arbitration of a single arbitrator in case the parties can agree upon one, otherwise, to two arbitrators, one to be appointed by each party and an umpire to be appointed by the two arbitrators before entering upon the references and in either case in accordance with and subject to the provisions of the Indian Arbitration and Reconciliation Act 1996 or any statutory modification or re-enactment thereof for the time being in force. All arbitration proceedings shall be conducted in English language only and the decision of the arbitration tribunal constituted in accordance with the above shall be final and binding upon the parties. Each party to the dispute shall bear its own costs, unless otherwise specified by the arbitration tribunal in its order. The seat and venue of all arbitration proceedings under this Contract shall be Mumbai.
- 26.2 Work under the Contract shall continue during the arbitration proceedings and no payments due or payable by the Owner shall be withheld on account of such proceedings.

## 27. LAW, LANGUAGE & MEASUREMENTS

- 27.1 Applicable law to this Contract shall be the Indian Law. The respective rights, privileges, duties and obligations of the Owner and the Contractor under this Contract shall be governed and determined by the Laws of State, where the project is located and of the Republic of India.
- 27.2 All correspondence and documentation pertaining to this Contract shall be in the English language only. The official text of this Contract shall be English, regardless of any translation that may be made for the convenience of the Parties. All correspondence, information, literature, data, manuals, definitive documents, notices, waivers and all other communication, written or otherwise, between the Parties in connection with this Contract shall be in English.

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27.3 All measurements shall be in metric system

## 28. FORCE MAJEURE:

### 28.1 Definition of Force Majeure

“Force Majeure” shall mean an event or circumstance beyond the reasonable control of the Owner/Project Manager or the Contactor which could not have been foreseen, prevented or mitigated by such Party using its reasonable diligence and which makes it impossible for such Party to perform the whole or in part its obligations under the Contract, including but not limited to:

- a) Act of God.
- b) An act of war, (whether declared or undeclared) hostilities invasion, armed conflict or an act of foreign enemies, blockade, embargo, revolution, military action, or sabotage.
- c) Contamination by radio-activity from any nuclear fuel, or form any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive, or other hazardous properties.
- d) Riot, civil commotion, terrorism or disorder, unless solely restricted to employees of the Contractor or of his Sub-contractors.
- e) Natural or regional industrial disputes or targeted disputes which are part of national or regional campaign and which is not reasonably within the powers of a Party to prevent, or which is not specific to the Party or any of his Contractors or Subcontractors.
- f) Operation of the forces of nature such as earthquake, hurricane, lightning, tidal wave, tsunami, typhoon or volcanic activity.

### 28.2 Excused Performance

If either Party is rendered wholly or partially unable to perform its obligations under this Contract because of a Force Majeure Event, that party will be excused from whatever performance is affected by the Force Majeure event to the extent so affected provided that:

- a) The affected Party gives the other Party Written Notice of the occurrence of the Force Majeure Event as soon as practicable after the occurrence of the Force Majeure Event and also gives the other Party Written Notice describing in reasonable detail the particulars of such occurrence, including an estimation of its expected duration and probable impact on the performance of such Party's obligations hereunder, and thereafter continues to furnish thereto timely regular reports with respect to continuation of the Force Majeure Event;

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- b) The suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure;
- c) No liability of either Party which arose before the occurrence of the Force Majeure Event causing the suspension of performance shall be excused as a result of the occurrence;
- d) The affected Party shall exercise all reasonable efforts to mitigate or limit Damages to the other Party;
- e) The affected Party shall use its best efforts to continue to perform its obligations hereunder and to correct or cure the event or condition excusing performance;
- f) When the affected Party is able to resume performance of its obligations under this Contract, that Party shall give the other Party Written Notice to that effect and shall promptly resume performance hereunder.

### 28.3 Limitations

Notwithstanding anything to the contrary contained herein:

- a) any act, event, or occurrence listed above or asserted as a Force Majeure Event that results materially from the negligence or intentional acts of the affected party (including in the case of Contractor or any Sub-contractor thereof) shall not constitute a Force Majeure Event; and
- b) The affected Party shall not be relieved from obligations under this Contract to the extent that the negligence or wilful misconduct of the affected Party (or in the case of Contractor or any Sub-Contractor thereof) contributes to or aggravates the Force Majeure Event.

### 28.4 Effect of Force Majeure Event

Neither the Owner/Project Manager nor the Contractor shall be considered in default or in Contractual breach to the extent that performance of obligations is prevented by a Force Majeure Event, which arises after the Effective Date. Except as otherwise provided in a Change Order, an extension of time shall be granted to Contractor only to the extent Contractor proves to Owner/Project Manager:

- a) The performance of the Work or supply of Goods is actually and necessarily delayed by an event of Force Majeure; and
- b) The effect of such event of Force Majeure could not have been prevented or avoided or removed despite exercise of reasonable due diligence whether before, after or during the event of Force Majeure.

### 28.5 Payment to Contractor

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If, in consequence of Force Majeure, the Plant or any part thereof shall suffer loss or damage, the Contractor shall be entitled to claim and receive payment for the cost of Work or supply of Goods executed in accordance with the Contract, prior to the event of Force Majeure.

**28.6 Optional Termination, Payment and Release**

Irrespective of any extension of time, if a Force Majeure Event occurs and its effect continues for a continuous period of [180 days], the Owner/Project Manager may give to the other a Notice of termination, which shall take effect 30 (thirty) Days after the giving of the Notice. If, at the end of the 30 (thirty) Day period, the effect of the Force Majeure Event continues, the Contract shall terminate. If the Contract is so terminated, the Owner/Project Manager shall determine the work done and pay to the Contractor all amounts due and payable for such work.

**29. CHANGE:**

A Change Order shall be issued by the Owner in accordance with this clause, when Owner proposes to make any change in the Scope, Services, the Contract Price, the Performance Guarantees and/or the Schedule.

**29.1 Further detailing not a Change Order**

Contractor’s performance of Services shall be subject to further detailing from time to time and Contractor shall receive no additional compensation for such detailing to the extent that such detailing does not constitute a Change Order.

No change made necessary because of any default of the Contractor in the performance of its obligations under the Contract shall be deemed to be a Change, and such change shall not result in any adjustment of the Contract Price or the Time for Completion.

**29.2 Right to Change Order**

Change Orders may be initiated by the Owner/Project Manager/Owner’s Representative at any time during the Contract Period, either by instruction or by a request (the “Change Order Notice”) to the Contractor to submit a proposal. If the Owner/Project Manager/Owner’s Representative requests the Contractor to submit a proposal and subsequently elects not to proceed with the change, the Contractor shall not be reimbursed for the Cost incurred for proposal.

The Contractor shall not make any alteration and/or modification of the Services unless and until the Owner/Project Manager/Owner’s Representative instructs or approves a Change Order in Writing.

**29.3 Change Order Procedure**

If the Owner/Project Manager/Owner’s Representative issues a Change Order Notice, the Contractor shall submit a proposal addressing proposed design and/or work to be performed with supporting details, any modification to the schedule as a result of the change and adjustment in Contract price, within fifteen (15) Days or any other period as mutually agreed:

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- 29.3.1 The Owner/Project Manager/Owner's Representative shall respond with approval, rejection or comments within a period to be mutually agreed after receipt of such proposals.
- 29.3.2 If the Owner/Project Manager/Owner's Representative instructs or approves in Writing a Change Order, he shall proceed with adjustments to the Contract Price, Schedule of Payments, Performance Guarantees as required.
- 29.3.3 Contractor shall not suspend performance of this Contract during review and negotiation of any Change Order, except as may be directed by Owner/Project Manager or required by Applicable Law.
- 29.4 Payment in respect of the approved Change Orders shall be released by Owner/Project Manager to the Contractor on satisfactory completion of such Change Order and its certification by the Owner's Representative in the same manner as applicable to corresponding milestone payments under the Contract.

**30. MISCELLENIOUS:**

- 30.1 Site conditions has been made clear to the Contractor during tendering stage and the Contractor has understood the scope of work, hence, no claims of whatsoever nature shall be entertained by the Owner on account of any such reason cited by the Contractor at later date. It also understood that the Contractor has inspected the site of work, has fully acquainted himself with site conditions and has obtained for himself on his own responsibility and at his own expenses all information which may be necessary for execution of work.
- 30.2 In case work is nearly or is anticipated to be suspended by Contractor, or in case only unimportant progress is being made, or in case it is apparent that the CONTRACTOR is about to forfeit his Contract or that the money yet due to him will not complete his Contract, the Owner may, at his discretion, withhold any payment which may be due to the CONTRACTOR.
- 30.3 No claims shall be entertained on account of idle time charges.
- 30.4 The work shall be carried out with due diligence and all work shall be executed in a workman like manner subject to the approval of the Owner (or any other duly authorized representative of the Owner) whose decision as to rate of progress and quality of work or material shall be final and binding.
- 30.5 The Owner shall have right to omit or cancel, add or alter any items of work without assigning any reason whatsoever and no claim for compensation for damage will be entertained for such omissions, alterations, additions and cancellations.
- 30.6 The Contractor has to maintain the pollution limits to the minimum. The Contractor shall in advance intimate to Owner and other related Contractors about the areas of work which may be subjected to pollution, dust or noise and shall take proper pollution and dust control measures to prevent dust from rising as a result of pile boring or other such activities

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- 30.7 Upon completion of work, the Contractor shall promptly demobilise from the site and leave the place in a manner as directed by the Owner, including cleaning of the area. CONTRACTOR shall start demobilisation only after the successful completion of the contract. No equipment, plant material or personnel shall be de-mobilised from the site unless with the express consent of the OWNER's Project Manager. The OWNER reserves the right to disallow in de-mobilisation if works under this scope of this contract are not completed to his satisfaction.
- 30.8 The Contractor is normally expected to work during daytime only and is required to complete the work in all respects as stipulated elsewhere. However, night work or working on Holidays may be stipulated by the Owner or permitted in exigencies with prior approval of the Owner. Sufficient lights shall be provided by the CONTRACTOR to safeguard the workmen and the public when the night work is in progress.
- 30.9 No claims for extra works shall be entertained unless such extra works are agreed to in writing by the Contractor's Representative.
- 30.10 The Contractor is responsible for safety and security of the works executed by him under the Contract.
- 30.11 The Contractor to obtain at his own cost all Material entry permits to the state (Road Permits), statutory work permits and responsible for safe working procedures at sites, safety of men and machineries.
- 30.12 Day to Day debris cleaning and housekeeping is in the scope of the Contractor and no extra charges shall be paid for the same.



**ANNEXURE VIII GENERAL CONDITIONS OF CONTRACT**

CONFIDENTIAL

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**1. DEFINITION OF TERMS AND PRELIMINARY CONDITION OF CONTRACT**

- 1.1 Definitions: In the Contract (as defined below), unless the context requires otherwise the words and expressions defined below shall have the meaning hereinafter assigned to them.
  - 1.1.1 “Affiliate” shall mean an entity controlling, controlled by, or under the common control with, a Party directly or indirectly through ownership of voting securities or by Contract or otherwise
  - 1.1.2 “Annexure” means all appendices, annexure and schedules annexed to this Contract or incorporated by reference herein and shall include all amendments and revisions thereto made by mutual agreement of Owner/Project Manager and Contractor in accordance with the provisions contained in this behalf in this Contract.
  - 1.1.3 Not Used
  - 1.1.4 “Applicable Laws” means all laws, treaties, ordinances, rules, regulations applicable in India and amendments, re-enactments, revisions, applications, and adaptations thereto made from time to time and in force and effect, judgements, decrees, injunctions, writs and orders of any court, arbitrator or governmental agency or authority, rules, regulations, orders and interpretations of any Governmental Instrumentality, court or statutory or other body having jurisdiction over construction of the Facility on the Facility Site, performance of the Work or supply of Goods, including Applicable Permits, as may be in effect at the time of performance of work or supply of Goods hereunder by the Contractor, which time would include Defects liability period as appropriate, provided, however, that if at any time the Applicable Laws are less stringent than the standards set forth in the Contract hereto, the standard set forth in the contract hereto shall be deemed to be the standards under Applicable Laws.
  - 1.1.5 “Applicable Permits & Clearances” means any and all Permits, Clearances, authorizations, consents, licenses (including without limitation any import or export licenses), lease, ruling, exemption, filing, agreements, or approvals, required to be obtained or maintained in connection with construction of the Works on the Site, performance of Work, respectively by the Contractor and the Owner/Project Manager in accordance with the Contract and their maintenance, as may be in effect at the time of Contractor’s performance of Work or supply of Goods hereunder.
  - 1.1.6 “Bid” means the offer of the Contractor to the Owner/Project Manger in response to the Tender Document as set forth in the Final Proposal.
  - 1.1.7 “Business Day” means a day other than a Sunday or public holiday on which banks are open for domestic business in the city/area where project site is located.
  - 1.1.8 “Cause” in relation to the revocation or amendment of any Permit means any fact or circumstance, including without limitation any default, neglect or failure to abide by any of the terms and conditions of such Permit.

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- 1.1.9** “Change in Law” means the occurrence of any of the following after the Effective Date of this Agreement.
- a) The enactment of any or issuance of any new Indian law that becomes applicable law
  - b) The amendment or repeal, or re-enactment of any existing Applicable law
  - c) A change in the interpretation or application or enforcement of any Applicable Law by Government instrumentality
  - d) The revocation or cancellation of any Applicable Permit unless due to a cause attributable to the Contractor.
- 1.1.10** “Change Order” means a written order from the Owner/Project Manager to the Contractor after the Effective Date of the Contract requiring a change in any part of the Work or supply of Goods that may involve
- a) A change in the Scope of Work or supply of Goods,
  - b) An additional Work or supply of Goods,
  - c) The omission of a portion of the Work or supply of Goods or
  - d) If appropriate, an adjustment in one or more of the (i) Contract Prices, (ii) Completion Dates, (iii) Milestone Payment Schedule, (iv) any of the Performance Guarantees, or (v) any provision of this Contract including any Annexure or Schedule hereto or
  - e) Any of the above in combination.
- 1.1.11** “Change Order Notice” means a written proposal issued and signed by Owner/Project Manager requesting a change, submitted to Contractor by Owner/Project Manager.
- 1.1.12** “Change Order Request” means a written notice to Owner/Project Manager issued by Contractor indicating that a change order is required in connection with the performance of the work or supply of goods.
- 1.1.13** “Commissioning” shall mean integrated activity covered under “Preliminary Operation”, “Initial Operation”, “Trial Operation” and carrying out “Tests before Taking-Over” of Relevant Package under the Contract.
- 1.1.14** “Contract” means the documents as set out in the form of Contract Agreement in relation to the Works between the Parties as may be amended, supplemented or modified from time to time by agreement in Writing between the Parties.
- 1.1.15** “Control” (including, with its correlative meanings, the term “under common Control with” or “Controlled by”), as used with respect to any person, means possession, directly or indirectly, of the power to direct or cause the direction of management or policies of any Person, whether through the ownership of voting securities, or partnership or other ownership interests, or by

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contract or otherwise; it being clarified that the ownership of 26% of the voting securities of a Person, or the ability to appoint a majority of the members of the board of directors or other governing body of such Person, shall be deemed to be “Control” over such Person.

- 1.1.16** “Contract Period” or “Period of Contract” or “Contract duration” means the period from the Effective date up to and including the last day of the Defect Liability Period.
- 1.1.17** “Contract Price” or “Contract Value” or “Contract Sum” means the lump sum fixed price or unit rates of items as stated in the Contract or such price as may be modified and as payable by the Owner/Project Manager to the Contractor in consideration of it performing the Works or supply of Goods including all obligations of the Contractor under and in accordance with the provisions of the Contract.
- 1.1.18** “Contractor’s Works” shall mean the places which are used by the Contractor or any of its sub-vendor / Sub-Contractor for the manufacture of equipment or fabrication of materials for the performance of Work.
- 1.1.19** “Contractor’s Equipment” means all machinery, apparatus, equipment, appliances, Materials, items and other things (other than temporary Works) of whatsoever nature required for the execution and completion of the Works, performance of the Contractor’s obligations under the Contract including supply of Goods and Work, establishing of Performance Guarantees, and the remedying of any defects and deficiencies, but does not include equipment, apparatus, appliances, machinery, Materials, items and other things of whatsoever nature intended to form or forming part of the Works.
- 1.1.20** “Contractor” means the Person whose Bid has been accepted by the Owner/Project Manager and is awarded the Works under this Contract, and the legal successors in title to such person who satisfies the qualification criteria set forth in the Tender Documents.
- 1.1.21** “Contractor Permits” means all Permits, required by the Contractor from any Government Instrumentality for the performance of his obligations.
- 1.1.22** “Contractor’s Representative” means the person named as such in the Contract or other person appointed and from time to time communicated to the Owner/Project Manager by the Contractor in his place in accordance with the terms of the Contract.
- 1.1.23** “Completion of Works” shall mean successful completion of all Works including Performance Tests and of ‘Tests Before Taking Over’ and issuance of Final Taking Over Certificate/completion certificate by the Owner/Project Manager.
- 1.1.24** Not Used.
- 1.1.25** “Consultant” shall mean Consulting Engineers appointed by the Owner/Project Manager for the Project and shall include, their duly authorised representatives.

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- 1.1.26** “Day” means a calendar Day of 24 (twenty four) hours and “Year” means 365 (three hundred and sixty five) days.
- 1.1.27** “Documents” means and includes all design documents, engineering documents, Drawings, calculations, computer software (programs), computer media, samples, patterns, models, construction documents, erection documents, Operation and Maintenance Manuals, and other manuals, and the like as well as, all other data and information to be submitted by the Contractor and shall include without limitation, engineering, design and construction drawings, data sheets, specifications, plans, bills of Materials and estimates.
- 1.1.28** “Drawings” shall mean all:
- a) Drawings furnished by the Owner/Project Manger or the Consultant.
  - b) Supplementary drawings furnished by the Owner/Project Manger or the Consultant to clarify and to define in greater detail the intent of the Contract.
  - c) Drawings submitted by the Contractor with his proposal provided such drawings are acceptable to the Owner/Project Manger or the Consultant.
  - d) Engineering data and drawings submitted by the Contractor during the progress of the Work under the Contract, provided such engineering data and drawings are acceptable to the Consultant or the Owner/Project Manager.
- 1.1.29** “Effective Date” or “Effective Date of Contract” or "Date of award" means the date on which the Contract comes into force and effect, i.e. the date of issue by the Owner/Project Manager of the Letter of Intent or Notice to Proceed or as defined in the Contract Agreement.
- 1.1.30** “Facility” or “Plant” means, collectively, the Relevant Package and other apparatus, appliances, machinery, equipment, components and other Works, together with all auxiliaries, Materials, apparatus, appliances others things whatsoever and related buildings as an integrated whole, including without limitation all systems and sub-systems thereof and related facilities, including without limitation any and all appliances, parts, instruments, appurtenances, accessories and other property that may be incorporated or installed in or attached to or otherwise become part of the Plant or as envisaged in the Contract or which otherwise constitutes a part of the Facility and located on Site.
- 1.1.31** “Final Take over” means the acceptance by the Owner/Project Manager of the Works as a whole in accordance with Contract.
- 1.1.32** “Final Payment Certificate” means the payment certificate issued by the Owner/Project Manager or his Representative thereof to the Contractor.
- 1.1.33** “Financing Document” means any document relating to the: Debt or equity financing to the Owner/Project Manager for provision of funds for the development, Design, construction and

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/or operation of the Plant; or funds for refinancing part or whole or take-out of any such financing.

- 1.1.34** “Force Majeure Event” shall have the meaning set forth in clause no. 13.0 of these Conditions of the Contract.
- 1.1.35** “Foreign Currency” means a freely convertible currency, specified in the Schedule of Prices mentioned elsewhere in Contract in which part of the Contract Price is payable, but not Indian Rupees.
- 1.1.36** “General Conditions of Contract” means these ‘Terms and General Conditions of Contract’ as mutually agreed as part of Contract.
- 1.1.37** “Goods” means all of the materials, equipments, machinery, apparatus, appliances, components and/or other Materials and things, which the Contractor is required to supply to the Owner/Project Manager under the Contract.
- 1.1.38** “Good Engineering Practices” means those practices, methods, acts, techniques and standards as may be followed or employed in the performance of the Work or supply of Goods and discharge of its obligations by the Contractor and which (i) are generally accepted internationally for use in the Construction and electric utility industry, taking into account conditions in India, in connection with the works of the same or similar size and type as the Relevant Package, (ii) are commonly used in prudent engineering, construction, project management and operations, and (iii) would be expected to result in performance of the Services and completion of Works in a manner consistent with Applicable Laws, Applicable permits, reliability and safety.
- 1.1.39** “Government Instrumentality” or “Government” means the Government of India, the Government of State and any other State, or any political subdivision, ministry, department, agency, corporation, commission or any regional, local or municipal authority or governmental body thereof or any other governmental or statutory body under the direct or indirect control of the Government of India or Government of State or of any other State, or of any political subdivision, ministry, department, agency, corporation, commission, or any regional, local or municipal authority or governmental body thereof, and shall include without limitation any other governmental or statutory body having jurisdiction over the facility or over the performance of any part of Work or the Works or any obligation of the Contractor or the Owner/Project Manager under the Contract.
- 1.1.40** “Guaranteed Completion Date” or “Guaranteed Completion Dates” means, individually or collectively, the Completion Date of the Works.
- 1.1.41** “Hazardous Materials” means (i) hazardous materials, hazardous wastes, hazardous substances, toxic substances or contaminants as those terms are defined under any environmental law or regulation, including, but not limited to, Applicable Laws, and in the regulations adopted or promulgated pursuant thereto; (ii) petroleum and petroleum products including crude oil and any fractions thereof; (iii) any other hazardous, radioactive, toxic or noxious substance, material,

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pollutant, or solid, liquid or gaseous waste; and (iv) any substance that, whether by its nature or its use, is subject to regulation under any environmental law or with respect to which any applicable environmental law or any Governmental Instrumentality requires environmental investigation, monitoring or remediation.

- 1.1.42** “Inspector” shall mean the authorised representatives appointed by the Owner or Project Manager or the Consultant or Owner’s/Project Manager’s Third Party Inspection Agency for purpose of the inspection of materials / Equipment / works / Services.
- 1.1.43** “Intellectual Property” means copyrights conferred under statute, common law or equity in relation to inventions (including patents) registered and unregistered trademarks and service marks registered and unregistered designs, circuit layouts, confidential information, proprietary information and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.”
- 1.1.44** “Interim Payment Certificate” means any payment certificate other than Final Payment Certificate, issued by the Owner/Project Manager.
- 1.1.45** “Latent Defect” shall be the defects inherently lying within the goods or Works which do not manifest during normal inspections carried out by the Owner/Project Manager during Defect liability Period.
- 1.1.46** “Liquidated Damages” means the appropriate measures of the damages for such delays or such shortfalls in performance by the Contractor and are neither penalty nor consequential damages sustained by Owner/Project Manager as a result of such delays and / or shortfalls, as set forth in relevant clause hereof.
- 1.1.47** “Manuals” means all the various instruction manuals to be provided as per the Contract by the Contractor and shall include Manuals described in Specifications or General Conditions of Contract.
- 1.1.48** “Manufacturer” means any entity or firm who is the producer and furnisher to the Contractor of any material or designer and fabricator of any equipment / systems which is to be incorporated in or forms part of the Plant / work.
- 1.1.49** “Materials” means Goods and other things of all kinds to be provided and incorporated, to be used in the permanent Works / Plant/ Works by the Contractor, including Goods purchased by the Owner/Project Manager and supplied to the Contractor or as a free issue or the supply-only items (if any) which are to be supplied by the Contractor under the Contract.
- 1.1.50** “Milestone Payment Schedule” means the document which sets forth the limits of payments to be released (worked out, inter alia, on the basis of payment terms agreed by the Owner/Project Manager) by linking such payment limits (in terms of percentages) with detailed milestones commencing from the Effective date. Such percentages shall be with reference to the Contract Price.

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- 1.1.51** “Month” shall mean calendar month or a period of 30 (thirty) days as relevant to the context.
- 1.1.52** “Monthly Progress Report” or “Progress Report” means a progress report of the Works meeting the requirements set forth in Specification hereto or as instructed by the Owner/Project Manager.
- 1.1.53** “Notice in Writing” or “Written Notice” shall mean a notice in writing, typed or printed or hand written characters, sent (unless delivered personally or otherwise proved to have been received) by registered post or by electronic transmission to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post or by electronic media it would have been delivered.
- 1.1.54** “Other Contractor” shall mean Contractors engaged by Owner/Project Manager for carrying out other related works and other allied infrastructure facilities required for the Works.
- 1.1.55** “Owner” shall mean the Tata Power Company Limited in its capacity as Owner of the Facility and the Works and shall include its successors and assigns, as well as authorised officers. ‘Project Manager’ shall mean The TATA Power Company Limited or duly authorised representatives. “Engineer” shall mean the duly authorised representative of the Owner.
- 1.1.56** Owner’s/Project Manager’s Representative” or “Engineer” means the person appointed by the Owner/Project Manager from time to time and notified as such to the Contractor to act as Owner’s/Project Manager’s Representative for the purposes of the Contract.
- 1.1.57** “Owner’s/Project Manager’s Instructions” shall mean any drawings, instructions, details, directions and explanations, in Writing issued by the Owner/Project Manager or the Consultant from time to time during the subsistence of the Contract.
- 1.1.58** “Owner/Project Manager Permits” means the permits, authorisations, consents and approvals required by the Owner/Project Manager to own, possess, operate and maintain the Works and to operate it for intended purpose.
- 1.1.59** “Party” means Owner/Project Manager or Contractor individually and “Parties” means Owner/Project Manager and Contractor collectively.
- 1.1.60** “Permanent Works” means the Permanent Works, equipment and Materials including all Civil and electro-mechanical works to be designed, engineered, manufactured, installed, erected, supplied, executed, commissioned or tested in accordance with the Contract and which form part of the Facility.
- 1.1.61** “Performance Guarantees” or “Warranty” shall have the meaning set forth in Technical Specifications of Contract.
- 1.1.62** “Performance Test” means, the test to be carried out in accordance with the provisions of Technical Specifications of Contract to prove and establish the Performance Guarantees as per Technical Specifications of Contract.

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- 1.1.63** “Permit” means any valid permit, authorisation, license, registration, approval, consent, waiver, and exemption, No-Objection Certificate, Approval, variance, franchise or any similar order of or from any Government Instrumentality, court or other body having jurisdiction over the matter in question.
- 1.1.64** “Person” means any individual, corporation, partnership, association, joint stock Company, trust, unincorporated organisation, Hindu undivided Family, joint venture, government or political subdivision or agency thereof.
- 1.1.65** “Preliminary Operation” means all activities undertaken as part of Commissioning after Civil and Mechanical Completion up to commencement of Initial Operation and shall include mechanical and electrical checkouts, calibration of instruments and protection devices, Commissioning of sub supporting systems and chemical cleaning of the system/equipment covered under Contract.
- 1.1.66** “Project” means the works to be performed under the scope of this Contract in accordance with the Contract documents.
- 1.1.67** “Project Documents” mean collectively this Contract, the State Implementation and Support Agreement, the Land Lease Agreement, Transportation Agreement and any other contracts entered into or to be entered into by the Owner/Project Manager with Other Contractors in connection with the Project including without limitation any contracts for Related Works.
- 1.1.68** “Provisional Acceptance” or “Take Over” means the provisional acceptance by the Owner/Project Manager of the Works, pursuant to the provisions of hereof.
- 1.1.69** “Prudent Utility Practices” means those practices, methods, equipment specifications and standards of safety and performance, as the same may change from time to time, as are generally accepted for use in electricity generating utilities taking into account conditions in India and commonly used in prudent electricity generation utility engineering and operations including design, engineering construction, erection, installation, Commissioning, testing, operation of the equipments comprised therein lawfully, safely, efficiently and economically for facilities of the type and size similar to the Project and that generally conforms to the Equipment Manufacturer’s operation and maintenance guidelines and also any guidelines provided in this regard by any Government or statutory organisation or a Rating agency and the like.
- 1.1.70** “Punch List” means the list prepared by Owner/Project Manager at the time of Provisional take over and thereafter periodically revised by Owner/Project Manager as necessary, and in any case updated by Owner/Project Manager within 20 (twenty) days following Owner’s/Project Manager’s receipt of a Notice of Final take over, in each case with the full co-operation of Contractor, which list shall set forth certain items of Work which remain to be performed by the Contractor in order to ensure that the Works fully complies with all of the standards and requirements set forth in the Contract.

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**1.1.71** “Related Works” shall mean other than the Work under the Contract performed or to be performed by the Owner/Project Manager or Owner’s/Project Manager’s Other Contractors in connection with the Facility either prior to, concurrently or subsequently with the Works within or outside the Site with whom the Contractor shall co-ordinate and interface his activities covered by the Contract.

**1.1.72** Not Used

**1.1.73** “Schedule” shall have the meaning set forth in relevant clause hereof.

**1.1.74** “Site” or “Project Site” means all those parcels of land owned by Owner/Project Manager on which the Works will be located, as more particularly identified on the site plan and described in Drawings forming part of Contract hereto.

**1.1.75** “Sub-Contractor” means any person named in the Contract as a Sub-contractor, sub-vendor, Manufacturer or supplier for a part of the Works or any person to whom a part of the Works has been subcontracted and the legal successors in title to such Person, but not any assignee of such Person.

**1.1.76** “Take Over” or “Taking Over” shall mean Taking-over of the Works for the purpose envisaged under the Contract upon completion of the Performance Tests and fulfilling the conditions as mentioned in relevant clause hereof.

**1.1.77** “Take over Certificate” or “Completion certificate” means the certificate issued under relevant clause hereof.

**1.1.78** “Temporary Works” means all temporary works of every kind (other than Contractor’s equipment) required for the execution and completion of the Works and the remedying of any defects.

**1.1.79** “Tender Documents” means the Invitation to Bid together with all documents & amendments thereto and clarifications if any issued by the Owner/Project Manager or the Consultant from time to time in respect thereof.

**1.1.80** “Tests” means all tests to be undertaken by the Contractor under or pursuant to the Contract including all the tests set forth in Technical Specifications.

**1.1.81** “Tests before Take Over” means the tests prescribed in the Technical Specifications mentioned elsewhere in the Contract and any other such tests as may be agreed between the Owner/Project Manager and Contractor or instructed as a Change Order, which has to be carried out by the Contractor before the Taking Over of the Works.

**1.1.82** “Trial Operation” shall have the same meaning as per Technical Specification of Contract.

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**1.1.83** “Technical Specifications” or “Specification” means all the specifications, drawings, datasheets, BOQ, scope etc which are part of Contract and which form part of technical, performance, workmanship, warranty, scope and all other requirement of the Works as stated therein.

**1.1.84** “Warranty Period” for the Works shall mean the period as mentioned in Technical Specifications or Special conditions of Contract beginning from the date of issuance of completion certificate of Works. During this Warranty Period, the Contractor will be liable to rectify defects in the Works if any arisen.

**1.1.85** “Works” or “Contract Works” or “Relevant Package” or “Project” means all the work and obligations of the Contractor under the Contract including without limitation, the Work and services described in Specifications including permanent works and temporary works as appropriate under the Contract.

**1.1.86** “Writing” shall include any manuscript, typewritten e-mail or printed statement, under or over signature and / or seal of the originator or author as the case may be.

**1.2 Law, Language and Measurements**

1.2.1 Applicable law to this Contract shall be the Indian Law. The respective rights, privileges, duties and obligations of the OWNER/PROJECT MANAGER and the Contractor under this Contract shall be governed and determined by the Laws of State , where the project is located and of the Republic of India.

1.2.2 All correspondence and documentation pertaining to this Contract shall be in the English language only. The official text of this Contract shall be English, regardless of any translation that may be made for the convenience of the Parties. All correspondence, information, literature, data, manuals, definitive documents, notices, waivers and all other communication, written or otherwise, between the Parties in connection with this Contract shall be in English.

1.2.3 All measurements shall be in metric system

**1.3 Stamp Duty and Similar Charges**

The costs of stamp duties and similar charges imposed by law on the Contract or Agreement or any part thereof shall be borne by the Contractor.

**1.4 Effective Date of Contract**

The Contract shall be deemed to have come into force and effect from the date of issue by the Owner/Project Manager of the Letter of Intent or the Notice to proceed to the Contractor or as defined in the Contract Agreement.

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### 1.5 Priority of Documents

In case of any discrepancy/conflict and/or differences in the documents constituting the work order, the order of precedence of the documents shall be as follows:

1. Work Order/Agreement
2. Letter of Intent (LOI)
3. Price Schedule (Bill of Quantity & Unit Rates)
4. Contract Specification
  - i) Scope of works
  - ii) Special conditions of Contract
  - iii) General conditions of Contract
  - iv) Technical Requirement
  - v) Drawings
  - vi) Instruction to bidders

The Contractor is deemed to have full knowledge and understanding of the contents of all the foregoing documents whether contained in or incorporated by reference thereto, and accepted all the terms and conditions contained therein. In the event of any ambiguity or conflict between any of the foregoing Contract Documents, the Contractor shall, prior to commencement of the Contract work, be deemed to have clarified from the Owner/Project Manager all such ambiguities or conflicts. The order of precedence of the foregoing documents shall be the same as listed herein above.

### 1.6 Documents on Site

The Contractor shall keep on the site one complete set of the Contract, the Documents, Change Orders, communications given or issued under various clauses and sub clauses and the Documents referred /mentioned in sub-clause 1.5 duly authenticated by the Owner's Representative. These Documents shall be either true copies or original documents, the same being verified as true copies by OWNER's Representative. The OWNER/PROJECT MANAGER, the Owner's Representative and his delegates (as referred to in sub-clause 2.4) shall have the right to use such Documents at all reasonable times.

### 1.7 Communications

All certificates, notices, instructions, communications, consents, approvals, orders or determination to be given to the Contractor by the OWNER/PROJECT MANAGER or the Owner's Representative, (in as many copies required) and all notices or communication, to be given to the OWNER/PROJECT MANAGER or to the Owner's Representative by the Contractor, shall be in Writing and may either be delivered by hand against written acknowledgement of receipt, or be sent by airmail or one of the agreed systems of electronic transmission as agreed by the OWNER/PROJECT MANAGER. The Contractor shall maintain a separate set of copies of all the inward and outward correspondences which should be produced at any time if need be. The Contractor shall act or modify actions only on the basis of valid written communications

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received from the OWNER/PROJECT MANAGER / OWNER's representative and would need to provide the documentary evidence (correspondences received from OWNER/PROJECT MANAGER / OWNER's Representative) if required by the OWNER/PROJECT MANAGER.

**1.8 Contractor's Use of Owner/Project Manager's Documents**

**1.8.1** Copyright in the Owner/Project Manager's requirements and other Documents issued by the OWNER/PROJECT MANAGER or the Owner's Representative to the Contractor shall (as between the parties) remain the property of the OWNER/PROJECT MANAGER. The design, engineering, Drawings and Works layout shall be with the OWNER/PROJECT MANAGER. Contractor may, at its Cost, copy, use and communicate any such documents for the purposes of the Contract. They shall not, without the Owner/Project Manager's consent, be used, copied or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract including performance of Work

**1.8.2** The Contractor shall indemnify the OWNER/PROJECT MANAGER in case of breach of this clause by the Contractor. If these Documents are received by a third party from the Contractor and the third party makes use of these Documents to cause harm or monetary loss to the OWNER/PROJECT MANAGER or use these Documents for their personal gain / monetary gain, the Contractor shall compensate the OWNER/PROJECT MANAGER for the loss suffered as well as for the value of gain derived by third party.

**1.9 Confidential Details**

**1.9.1** The Contractor shall treat the details of the Contract as private and confidential, except to the extent necessary to carry out his obligations hereunder. The Contractor shall not publish, permit to be published, or disclose any particulars of the Contract in any trade or technical paper or elsewhere without the prior consent in writing of the OWNER/PROJECT MANAGER at the Owner/Project Manager's sole discretion.

**1.9.2** The Contractor shall indemnify the OWNER/PROJECT MANAGER in case of breach of this clause. If the confidential details relating to this Contract or its contents are received by a third party from the Contractor and the third party makes use of these details to cause harm or monetary loss to the OWNER/PROJECT MANAGER or use these Documents for their personal gain/ monetary gain, the Contractor shall compensate the OWNER/PROJECT MANAGER for the loss suffered as well as for the value of gain derived by the third party. The Contractor shall not use the confidential details of the Contract for any other purpose except for the strict purpose intended under the Contract.

**1.10 Contract Co-ordination and Interface**

**1.10.1** From fiscal and execution considerations, the Owner/Project Manager may enter into independent stand-alone contracts with one or more Other Contractors for the other packages at the same premises.

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**1.10.2** The Contractor, shall be responsible for effective coordination and interfacing of all his contracting activities and obligations under the Contract with the activities and obligations of the Other Contractors and Related Works contractors in a seamless manner, irrespective of whether the same is specifically detailed in such Contracts, to ensure that the Guaranteed Time Schedule and Performance Guarantees set forth in the Contracts are properly fulfilled in a timely manner by all such Other Contractors.

**1.10.3** It is the responsibility of the Contractor to interface, coordinate and cooperate with Other Contractors. Contractor shall share all information & details about the Works which are reasonably required by Other Contractors to perform works under their respective Contracts or to integrate the Works with other Contractors' works if so required.

**1.11 Assignment**

**1.11.1** The whole of the works included in the Contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign, sub-contract or sublet the Contract or any part, share or interest therein nor shall he take a new partner without the written consent of the Owner/Project Manager. Without prejudice to the above, it is agreed that sub-contracting of all or part of its obligations under this Contract shall not relieve the Contractor from the full and entire responsibility of the Contract (including such obligations thereunder that have been sub-contracted) or from active superintendence of the works during their progress. There shall not be any change in Control of the Contractor without the prior written consent of the Owner / Project Manager.

**1.11.2** If the Contractor shall cause any part of the work to be performed by the approved Sub-Contractor, the provisions of this Contract shall apply to such Sub- Contractor and his or its officers, agents or employees in all respects as if they were employees of the Contractor, and the Contractor shall not in any manner thereby, be discharged from his obligations and liability hereunder, but shall be liable hereunder for all acts and negligence of his Sub- Contractor, Sub-contractor's officers, agents and employees, as if they were employees of the Contractor. No sub-contract shall be made by the Contractor, without the written approval of the OWNER/PROJECT MANAGER, of both the sub-contract and the Sub- Contractor, but no such approval of the OWNER/PROJECT MANAGER, of both the sub-contract and the Sub- Contractor, shall affect the provisions hereof or serve to relieve the Contractor of any of the responsibilities and liabilities as described above. Copies of all such sub-contracts shall be furnished to the OWNER/PROJECT MANAGER immediately upon the execution thereof. The OWNER / PROJECT MANAGER may request the Contractor at any time to terminate any sub-contracting arrangement if the OWNER / PROJECT MANAGER is not satisfied with the performance of such Sub-contractor and immediately upon receipt of such request, the Contractor shall terminate such sub-contracting arrangements. The Contractor shall ensure that all sub-contracting arrangements entered into by the Contractor allow it to terminate such sub-contracting arrangements in accordance with the instructions of the OWNER / PROJECT MANAGER, as set out above.

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**1.12 Relationship between Parties**

This Contract is on a principal-to-principal basis only and the Contractor shall act as an independent contractor in the performance of this Contract. The Contract shall not be construed as a partnership or an association of parties. There is no agent and principal relationship between the Parties. Each Party shall be responsible for its own conduct. The Contractor shall ensure at all times that all the work carried out under this Contract either by its own person or through any of its Sub-Contractors shall be always done under its own direct supervision.

**2. OWNER / PROJECT MANAGER’S OBLIGATIONS**

**2.1 Access and Right to use of the Site** The OWNER/PROJECT MANAGER shall grant the Contractor right of access to, and make available the Site to the Contractor in accordance with the terms of the Owner/Project Manager’s property rights within reasonable time after the Letter of Intent for the performance of the Work or pursuant to and in accordance with the Contract. Such right and use of the Site may not be exclusive to the Contractor. In the execution of the Works, no persons other than the Contractor or his duly appointed representative, duly authorised Sub-contractors and workmen, shall be allowed to do Work on the Site, except by the special permission, in writing by the OWNER’s representative.

**2.2 Permits Licences & Approvals**

**2.2.1** The Contractor shall be responsible for applying and obtaining all the Permits, licenses or approvals as required to be obtained by Contractor for carrying out and completion of the Works, in time as per the Schedule agreed in the Contract. The OWNER/PROJECT MANAGER may, at the request and cost of the Contractor assist the Contractor in applying for Contractor Permits and other Construction Permits as defined herein. Such requests may also include requests for the OWNER's/PROJECT MANAGER’s assistance in applying for any necessary government consent for the export of Contractor's equipment when it is removed from the Site.

**2.2.2** The OWNER's/ PROJECT MANAGER’s assistance in applying for Permits, licenses or approvals (for which the Contractor is responsible under the Contract) is not obligatory and the extent of such assistance shall be at the sole discretion and convenience of the OWNER/ PROJECT MANAGER. In any case, the obligations of the Contractor as set out herein shall continue, irrespective of the manner, outcome and extent of assistance from the OWNER/ PROJECT MANAGER. All the necessary fees and any incidental charges required to be paid for obtaining all Contract permits shall be solely borne by and be the sole liability of the Contractor, without any recourse to the OWNER/PROJECT MANAGER.

**2.3 Owner's / Project Manager’s Other Obligations**

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OWNER / PROJECT MANAGER shall

- a) Designate a person as OWNER's/ PROJECT MANAGER's Representative (the "OWNER's Representative") to be the contact for Contractor with respect to the performance of the Works and Contractor's obligation under the Contract, and shall be authorised to act for and on behalf of OWNER/ PROJECT MANAGER and administer this Contract on OWNER's/ PROJECT MANAGER's behalf, agree up on procedures for co-ordinating OWNER's/ PROJECT MANAGER's efforts with those of Contractor and Other Contracts and as appropriate, make information available to Contractor.
- b) Pay in a timely manner in accordance with Terms of Payment, subject to fulfilment of milestones and provided the Contractor is not in breach of Contract, the Contract Price and all other sums, if any, required to be paid by it to Contractor pursuant to the Contract.

## **2.4 The OWNER's Representative**

### **2.4.1 The Owner's representative's Duties and Authority**

The OWNER may appoint separate consultant/s to provide project management consultancy services for the Project. Such consultant/s shall act as an OWNER's Representative to exercise the rights and carry out the duties of the OWNER under the Contract. OWNER's representative shall also include Consultant / Consulting Engineer or Third Party Inspection Agency as required or deemed appropriate or authorised by the OWNER/PROJECT MANAGER. Any act, instruction or decision of the OWNER's representative shall be as if this was an act, instruction or decision of the OWNER. The OWNER shall keep the Contractor informed in writing of the persons designated as the Owner's Representative in accordance with the above provisions.

- 2.4.2** Except as expressly stated in the Contract, the OWNER's Representative shall have no authority to (a) amend, alter, modify or waive any provision or term of the Contract, or (b) relieve the Contractor of any of his duties, obligations or responsibilities under the Contract. Any proposal, inspection, examination, testing, consent, approval or similar act by the OWNER's Representative (including absence or disapproval) shall not relieve or absolve in any manner whatsoever, the Contractor from any responsibility, liability or obligation under the Contract, including responsibility and liability for his errors, omissions, discrepancies, and non-compliance with the Specifications and any provisions of the Contract.

### **2.4.3 OWNER's Representative's instructions**

The Contractor shall comply with written decision instruction or order given by the OWNER's Representatives (such as have been identified in writing by the OWNER) in accordance with the Contract. The Contractor shall not be authorised to receive instructions from any other Person without the prior written consent of the Owner and the Contractor shall be solely and entirely liable for any acts or omissions carried out under instructions from any Person other than the OWNER or a duly authorised OWNER's Representative.

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### 3. SCOPE OF CONTRACT

#### 3.1 General

**3.1.1** The Contractor shall carry out and complete the works in every respect in accordance with this Contract and in accordance with the directions and to the satisfaction of the OWNER/PROJECT MANAGER. The OWNER/PROJECT MANAGER may at his absolute discretion from time to time issue further drawings and/or written instructions, details, directions and explanations which are hereafter collectively referred to as " OWNER/PROJECT MANAGER 'S Instructions" in regard to:

- a) The variation or modification of the design, quality or quantity of works or the omission or substitution of any work.
- b) Any discrepancy in the drawings or between the Schedule of Quantities and/or drawings and/or specification.
- c) The removal from the site of any materials brought thereon by the Contractor and the substitution of any other materials thereof.
- d) The removal and/or re-execution of any works executed by the Contractor.
- e) The dismissal from the works of any persons employed thereupon.
- f) The opening up for inspection of any work covered up.

**3.1.2** The Contractor shall forthwith comply with and duly execute any work comprised in such OWNER/PROJECT MANAGER's Instructions provided always that verbal instructions, directions and explanations given to the Contractor or his Superintendent upon the works by the OWNER/PROJECT MANAGER shall, if involving a variation, be confirmed in writing by the Contractor within seven days and the OWNER/PROJECT MANAGER's written approval obtained. Rates of items not mentioned in the Schedule of Quantities and Rates shall be dealt with as extra items.

**3.1.3** If compliance with the OWNER/PROJECT MANAGER's Instructions as aforesaid involves work beyond that contemplated by the Contract, then unless the same were issued owing to some breach of this Contract by the Contractor, the OWNER/PROJECT MANAGER shall pay to the Contractor the prices of the said work as an extra to be valued as hereinafter provided.

**3.1.4 Free Issue Materials / Equipment (FIM) (as applicable) to the Contractor by the Owner/Project Manager:**

If the Contract involves or the Owner/Project Manager & the Contractor mutually agree for the incorporation of any free issue materials / equipment by the Owner/Project Manager depending upon criticality & availability of the materials during the course of the Contract :

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- (a) Not used
- (b) The Contractor shall inspect the free issue materials / equipment at the time of taking delivery thereof and satisfy itself of the quality, quantity and condition of the free issue materials / equipment. THE OWNER/PROJECT MANAGER shall not be liable for any claims or complaints whatsoever in respect of the quality, quantity or condition of the Free issue materials / equipment once the Contractor has taken delivery thereof.
- (c) All free issue materials / equipment shall be taken delivery of, transported, held, stored and utilized by the Contractor as trustee of THE OWNER/PROJECT MANAGER, and delivery of the Free Issue Material to the Contractor shall constitute an entrustment thereof by THE OWNER/PROJECT MANAGER to the Contractor with the intent that any transportation, utilization, application or disposal thereof by the Contractor otherwise than for incorporation in the Indigenous Material(s) shall constitute a breach by the Contractor.
- (d) The Contractor shall transport the Free issue materials / equipment only by such transportation as is suitable and shall hold and store the Free issue materials / equipment only at such place and/or premises that are air and water tight and otherwise suitable for the storage of the Free issue materials / equipment so as to prevent damage or deterioration or theft or other loss, and shall arrange such watch and ward as shall be necessary to ensure the safety thereof. The Contractor shall exercise the at least the same level of care and diligence in respect of the use, storage, transportation or safety of the free issue materials / equipment that it exercises in respect of its own materials / equipment.
- (e) Notwithstanding the Bank Guarantee mentioned in sub-paragraph (a) above, the Contractor shall replace any Free issue materials / equipment which is/are lost, damaged, misused, stolen or deteriorated with other Material(s) of equivalent quantity and quality and condition, and the same shall be deemed to constitute Free issue materials / equipment and the provisions of sub-paragraphs (a) to (f) hereof shall apply thereto in the same manner as to the originally supplied Free issue materials / equipment.
- (f) Unused Material(s) from the Free issue materials / equipment shall be returned by the Contractor to THE OWNER/PROJECT MANAGER and if THE OWNER/PROJECT MANAGER so directs, the Contractor shall dispose of the same by sale or otherwise on such terms and conditions as THE OWNER/PROJECT MANAGER may stipulate or approve and the Contractor shall pay to THE OWNER/PROJECT MANAGER the sale proceeds of the Material(s) so disposed of by sale.
- (g) CONTRACTOR shall ensure quarterly physical assessment of the stock of material issued to him by the OWNER/PROJECT MANAGER and submit the same in the form of Reconciliation.

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(h) The free issue materials will be supplied by the OWNER in bags, sizes and lengths or in coils as available. The cost of all wastage, due to rolling tolerance, cutting, conversion, straightening and/or fabricating shall be borne by the CONTRACTOR, at the recovery rates given in item No (i) below, as long as wastage margin does not exceed following limits:

1) Cement 2% - Reconciliation of cement shall be done as per standard practice as per relevant IS code and any wastage above 2% shall be recovered from the Contractor at the rate mentioned in item No (i) of clause 3.1.4 stated below.

2) Structural steel at 3% of the theoretical requirements – 2.5 % is considered as visible wastage and 0.5 % as invisible wastage like gas cutting etc. Rolling tolerance if any shall be recorded separately and due credit or consideration shall be given during reconciliation. All scraps shall be the property of OWNER. The scraps shall be properly accounted for and no scrap or cut pieces shall be removed from site or disposed off without prior inspection and written permission by the ENGINEER. All scraps are deemed to be included within the above allowances. The following dimensions shall be considered for reconciliation purposes

Structural sections less than 75 mm in any dimension - 1.2 meters and above

Structural sections exceeding 75 mm in any dimension-2.0 meters and above

Plates-Up to 12mm thickness - 200mm x 200mm and above

14mm to 25 mm thickness-300mm x 300 mm and above

25mm thickness – 400mm x 400mm and above

Provided further, if the ENGINEER so desires, the CONTRACTOR shall have to return to the OWNER cut pieces or scrap even below the dimension stated above. Due credit will be given for such return at rates to be fixed by the ENGINEER.

3) Reinforcement steel at 3% of the theoretical requirements – 2.5 % is considered as visible wastage and 0.5% as invisible wastage like cutting etc. Rolling tolerance if any shall be recorded separately and due credit or consideration shall be given during reconciliation. All scraps shall be the property of OWNER. The scraps shall be properly accounted for and no scrap or cut pieces shall be removed from site or disposed off without prior inspection and written permission by the ENGINEER. All scraps are deemed to be included within the above allowances. The following dimensions shall be considered for reconciliation purposes:

Reinforcement Steel Up to 16mm dia – 2 meters and above

Reinforcement Steel above 16mm dia – 3 meters and above

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Provided further, if the ENGINEER so desires, the CONTRACTOR shall have to return to the OWNER cut pieces or scrap even below the dimension stated above. Due credit will be given for such return at rates to be fixed by the ENGINEER.

- (i) Recovery for unaccountable wastages, i.e. in excess of limits stated as above or for the material that is not reconciled, shall be made from the CONTRACTOR at prevailing market rate plus 25 %. The OWNER shall decide the quantities of materials for which such value is to be recovered and decision of the OWNER/ENGINEER shall be final and binding.

### **3.2 Labour and Personnel**

- 3.2.1** The Contractor shall make his own arrangements for the engagement of all staff and labour, local or otherwise, and for their payment, housing, food and transport. Contractor shall provide all labour and personnel required in connection with Work, including:
- a)** Professional engineers licensed in accordance with any applicable licensing requirements in India or by any other governmental instrumentality to perform engineering services pursuant to the Contract.
  - b)** Project team of necessary engineers from various disciplines including, construction manager, Project engineer and civil, mechanical, electrical, instrumentation and control, costing, scheduling, procurement, construction, start-up and training supervisors, all of whom shall follow Good Engineering Practices and shall have had extensive experience in projects of similar nature and magnitude and shall be proficient in the English language and have knowledge of standard industry Practices, Applicable Laws and Applicable Permits.
  - c)** A Project Coordinator or other Representative, who shall be fully acquainted with the Project, shall be proficient in the English language and shall have the authority to administer this Agreement on behalf of Contractor. He shall give his whole time to the construction, erection and execution of the Works and to directing the preparation of all documents required for the same. Except as otherwise stated in the Contract, the Contractor's Representative shall receive (on behalf of the Contractor) all notices, instructions, consents, approvals, certificates, determinations and other communications under the Contract. Whenever the Contractor's Representative is to be absent from the site, a suitable replacement person shall be appointed, and the OWNER/PROJECT MANAGER / OWNER's Representative shall be notified accordingly.
  - d)** Quality assurance & Safety personnel, all of whom shall report directly to Contractor's designated home office managers and not to the Project personnel located at the Site.
  - e)** CONTRACTOR shall give first preference for suitable skilled/unskilled local labours who have been affected due to implementation of this project.

The Contractor shall employ (or cause to be employed) only persons who are careful and appropriately qualified, skilled and experienced in their respective trades or occupations. Upon OWNER's/ PROJECT MANAGER's request, Contractor shall provide OWNER/ PROJECT MANAGER with the resumes of, and arrange for the interview by OWNER/ PROJECT MANAGER of, any or all personnel described in clauses (a), (b), (c) & (d) of this Section 3.2.1. In addition, OWNER/

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PROJECT MANAGER will have the right to approve those individuals who will hold the positions described in clauses (a), (b), (c) and (d) of this Section 3.2.1 and any other key Project personnel employed by Contractor, and OWNER/ PROJECT MANAGER will be afforded the opportunity to choose among candidates for the positions of Project Manager, Project Engineer and Construction Manager. Contractor shall not remove any Project personnel described in clauses (a), (b) & (c) and (d) , of this Section 3.2.1 or any other individual in a supervisory or lead position without the prior consent of OWNER/ PROJECT MANAGER, which consent shall not be unreasonably withheld.

### **3.2.2 Removal of Staff and Labour**

The OWNER/PROJECT MANAGER / OWNER's Representative may require the Contractor by notice in Writing to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative, who in the opinion of the OWNER/PROJECT MANAGER / OWNER's Representative:

- a) Persists in any misconduct,
- b) Is incompetent or negligent in the performance of his duties,
- c) Fails to conform with any provisions of the Contract;
- d) Persists in any conduct which is prejudicial to safety, health, or the protection of the environment; or
- e) Other good and sufficient reasons.

### **3.2.3 Rates of Wages and Conditions of Labour**

Contractor shall ensure that he pays all his personnel and shall ensure and procure that his Sub-contractors pay to their personnel regularly their wages, overtime and other compensations. The attendance register and the wage register shall be submitted to the OWNER/ PROJECT MANAGER for verification at regular intervals. The Contractor shall also furnish the OWNER/ PROJECT MANAGER at regular intervals as governed by Applicable Laws including local statutes but not less than Monthly intervals, certificates that he has paid to his Sub-contractors and workmen and caused his sub-contractors to pay all the dues to his Sub-contractor workmen. In case such payment is not made regularly by the Contractor or his Sub-contractors, the OWNER/PROJECT MANAGER will be in his right to make such payments and deduct the same from the Contractor's progress payments. In case the OWNER/PROJECT MANAGER becomes liable to pay any wages or dues to the labour or to any Government agency under any of the provisions of the Minimum Wages Act, Workmen's Compensation Act or any other Applicable law due to act or omission of the Contractor, the OWNER/PROJECT MANAGER may make such payments and shall recover the same from the Contractor's bills. No labourer below the age of eighteen years shall be employed in the work

No price adjustment shall be made on account of Minimum wages during contract period including extension period if any.

### **3.2.4 Persons in the Service of Others**

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The Contractor or any of his Sub-contractors shall not recruit, or attempt to recruit, his staff and labour from amongst persons in the service of the OWNER/PROJECT MANAGER or other Contractors and agencies engaged by the OWNER/PROJECT MANAGER or the OWNER's Representative.

### **3.2.5 Labour Laws**

**3.2.5.1** Any personnel engaged by the Contractor in accordance with and in pursuance of this Agreement shall be the employees / sub-contractors of the Contractor and the Contractor shall be solely liable for and responsible to such personnel. The Owner shall have no responsibility towards any such personnel and such personnel shall, in no event, be deemed to be the employees or sub-contractors of the Owner. The Contractor shall comply with and shall ensure that he/his Sub-contractors comply with all the relevant labour laws applicable to his/ his Sub-contractors employees, and shall duly pay and afford and cause his Sub-contractors to pay and afford to them all their legal rights. The Contractor shall require all such employees to obey all Applicable Laws and regulations concerning safety at Work.

Contractor shall be responsible for all labour relation matters relating to the Work and shall at all times use its best efforts to maintain harmony among the personnel employed in connection with the Work whether by the Contractor or his Sub-contractors and shall enter into all necessary labour agreements with such personnel. Contractor and his Sub-contractors shall at all times comply with all Applicable Permits and Applicable Laws relating to employment including but not limited to Contract labour regulations, Workmen Compensation Act, Employee State Insurance and Provident Fund regulations, retrenchment Compensation etc. and labour welfare and use its best efforts and judgement as an experienced Contractor to adopt and implement policies and practices to avoid Work stoppages, slowdowns, disputes, strikes, lockouts and other labour strife and disagreement.

**3.2.5.2** The Contractor shall be fully responsible for the due compliance by him and his sub-contractors with all statutory requirements and with all applicable labour laws including Contract Labour Abolition and Regulation Act, Workmen's Compensation Act, P.F./E.S.I., Labour welfare fund, Act, etc. as may be applicable to the Contractor, the sub-contractors and their employees. The locations where Allied Manpower Management System (On-line system) has been implemented, the Contractor shall ensure necessary declarations and documents are provided in the system, as per the role of the Contractor envisaged in the system.

The Contractor should get in touch with the local HR/IR/ES&A teams for completion of Statutory compliances before start of the work. The contractor should also ensure that he provides correct and complete PF compliance data for a wage month in the format provided by the HR/IR/ES&A teams on or before 15th of the subsequent month, failing which penalty of 1% of the value of the Invoice, per day of delay would be deducted from the Invoice raised. Further, the management will also have a right to suspend the work in case of delay in submitting the PF data.

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All other compliances required by HR/IR/ES&A teams should also be provided as per timelines.

The Contractor shall fully indemnify and save harmless the Owner from and against all claims, demands, expenses, losses, liabilities, charges, actions, suits and proceedings whatsoever including claims under aforesaid Acts and laws which may be brought or made against the Owner, its Officers or servants by reason or in consequence of any matter or thing done or omitted or delaying the submission of data by the Contractor and/ or its sub-contractors and all costs, charges and expenses which may become payable by the Owner in respect thereof.”

### **3.2.6 Working Hours**

No work shall be carried out on the Site outside the normal working hours or on the locally recognised Days of rest or local festivals / holidays, unless:

- a) Contract so provides after fulfilling Owner / Project Manager’s process and procedures for the said working,
- b) Work is unavoidable, or necessary for the saving of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Owner/Project Manager/Owner’s Representative,
- c) Owner/Project Manager/Owner’s Representative gives his consent,
- d) Extended working hours/shift working is essential for achieving Project progress/milestones at no extra cost to the Owner/Project Manager.
- e) The CONTRACTOR is normally expected to work during daytime and is required to complete the work in all respects as stipulated elsewhere. For achieving Project progress/milestones, based on a specific request by the Contractor, OWNER/PROJECT MANAGER/Owner’s Representative may consider granting permission for working during the night shifts, if he considers it essential with no extra cost to the Owner/Project Manager. .Night work to be carried out only after obtaining necessary clearances and approval of the PROJECT MANAGER/Owner’s representative.

Sufficient lights shall be provided by the Contractor to safeguard the workmen and the public and to afford adequate facilities for properly placing and inspecting the material when the night work is in progress. CONTRACTOR should be geared and in readiness to carry out extended shifts, including night shift and abide by all statutory and safety requirements in respect thereof.

### **3.2.7 Facilities for Staff and Labour**

The Contractor shall provide and maintain all necessary accommodation and welfare facilities for his (and his Sub-Contractor's) staff and labour. The Contractor shall also provide the facilities specified in the Contract including Specifications, for the OWNER/PROJECT MANAGER's and OWNER's Representative's personnel. The Contractor shall not permit any of his or his Sub-

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contractors employees to maintain any temporary or permanent living quarters within the structures forming part of the Works or Project Site. Contractor shall make his own arrangements to procure and construct adequate labour housing outside the PROJECT Site and colony battery limits. No areas inside the OWNER's land and Project Site shall be used as labour colony. No workers/labourers/supervisors or other Contractor's or Sub Contractor's personnel should be allowed to stay within the OWNER's land area after his duty hours. Similarly no workers / labourers / supervisors or other Contractor's or Sub-Contractor's personnel shall be allowed to enter the OWNER's land area before the start of their respective duty time.

**3.2.8 Health and Safety Precautions**

Precautions shall be taken by the Contractor to ensure the health and safety of his and his Sub-Contractors staff and labour. The Contractor shall, in collaboration with and according to the requirements of the local health authorities, ensure that medical staff, first aid facilities, sick bay and ambulance service are available at the accommodation and on the Site at all times, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics. The Contractor shall maintain records and make reports concerning health, safety and welfare of Persons, and damage to property, as the OWNER's Representative may reasonably require. Contractor shall be responsible for the medical treatment / hospitalisation of his and his Sub-Contractor's staff / labour.

The Contractor shall appoint a member of his staff at the Site to be responsible for maintaining the safety, and protection against accidents, of all personnel on the Site. The Contractor shall pay particular attention to ensure safety of his staff and workmen and others persons in the vicinity of the Site and shall be responsible for any loss of life or injury to person due to negligence or any other causes whatsoever except natural causes. He shall provide all necessary fencing and lights required to prevent accidents and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and costs which may be awarded in any such suit, action or proceedings to any such person or which may with consent of the Contractor be paid to compromise any claim of any such person. Contractor shall comply with the Owner's/Project Manager's Safety Terms & Conditions, Health Safety & Environment Manual with sustainability document which is annexed to the GCC.

Without prejudice to the other provisions contained herein, the Contractor agrees to reinstate all damage of every sort mentioned in this clause so as to deliver the whole of the Contract work complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

The Contractor shall take all precautions necessary and shall be responsible for the safety of the work and shall maintain all lights, guards, sign boards, temporary passages, or other protection necessary for the purpose. All work shall be done at the Contractor's risk, and if any loss or damage shall result for fire or from other cause, the Contractor shall promptly repair or replace such loss or damage free from all expenses to the OWNER/PROJECT MANAGER. The Contractor

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shall be responsible for any loss or damage to material, tools or other articles used or held for use in connection with the work. The work shall be carried on to completion without damage to any work or property of the OWNER/PROJECT MANAGER or of others and without interference with the operation of existing machinery or equipment.

The use of explosives in a manner, which might disturb or endanger the stability, safety, or quality of the works, will not be allowed. Explosives shall be stored, handled and used as prescribed by the law and regulation of the Indian Union, the State in which the work is performed and sub-divisions thereof. Special attention must be given to immediate disposal of paper wrappings from explosives, which are poisonous to livestock.

Technical and safety evaluation of Contractor's sub-contractor shall be done jointly by Owner/Project Manager.

### **3.2.9 Contractor's Superintendence**

The Contractor shall provide all necessary superintendence during the construction, erection and execution of the Works, and as long thereafter as the OWNER's Representative may consider necessary for the proper fulfilling of the Contractor's obligations under the Contract. Such superintendence shall be given by the sufficient persons having adequate knowledge of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents) for the satisfactory and safe execution of the Works.

## **3.3 Permitting**

### **3.3.1 Contractor and Construction Permits**

Contractor shall obtain and maintain, all necessary permits required for the performance of its obligations hereunder, including those required for construction related activities and shall at all times, comply with all the terms and conditions as may be specified in such permits. If Contractor at any time becomes aware, whether as a result of notice from OWNER/PROJECT MANAGER or otherwise, of any applicable permit not obtained by him, Contractor shall promptly give notice thereof to OWNER/PROJECT MANAGER and Contractor shall be responsible for obtaining such Applicable Permit.

The Contractor shall fully indemnify and hold harmless OWNER/PROJECT MANAGER and all OWNER/PROJECT MANAGER and their respective shareholders, directors, employees and officials from any losses damages arising from and out of the Contractor's failure to secure such permits or comply with any terms and conditions stated therein.

### **3.3.2 Support to OWNER/PROJECT MANAGER for Permits**

In case OWNER/PROJECT MANAGER is responsible for the permits, Contractor shall provide support to OWNER/PROJECT MANAGER in obtaining all OWNER/PROJECT MANAGER Permits. Such Contractor support shall include:

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- a) Attendance at meetings with OWNER/PROJECT MANAGER and third parties designated by OWNER/PROJECT MANAGER;
- b) Assistance in Preparation of Permit applications or, as applicable, application to transfer permits to the OWNER/PROJECT MANAGER;
- c) Assistance in preparation of responses to inquiries by Governmental Instrumentalities / agencies;
- d) Assistance in presentations at hearing of Governmental Instrumentalities / agencies, and
- e) Provision of all available information and Documents required by OWNER/PROJECT MANAGER in connection with obtaining any OWNER/PROJECT MANAGER Permits;

**3.4 Co-operation**

**3.4.1** The Contractor shall, as specified in the Specification, afford all reasonable opportunities for carrying out their respective Work to:

- a) Any other contractors employed by the OWNER/PROJECT MANAGER and their workmen,
- b) The personnel of the OWNER/PROJECT MANAGER, and
- c) The personnel of any legally constituted public authorities who may be employed in the execution on or near the site of any work not included in the Contract, which the OWNER/PROJECT MANAGER may require to complete the Project.

**3.4.2** Contractor shall not hinder the work of other contractors and sub-contractors of OWNER/PROJECT MANAGER, if any employed by or on behalf of OWNER/PROJECT MANAGER at the Plant Site or the Project Site, to introduce and store Materials in those areas of the Plant Site and the Project Site under OWNER/PROJECT MANAGER's direct control and shall cooperate to help them perform their respective services without hindrance or disruption. The Contractor shall also acknowledge that he works in congruence with requirements of lenders, other contractors, Project off takers and other related parties, and provide them appropriate information as and when required by them and not act as to harm the interests of any of them.

**3.4.3 Miscellaneous Liabilities in Co-operation with Other Contractors**

The Contractor shall also so arrange to perform his Work as to minimize to the maximum extent possible interference with the work of Other Contractors and their workmen.

Any injury or damage that may be sustained by the employees of the Other Contractors or the OWNER/PROJECT MANAGER, or damage to the works of Owner/Project Manager and/or other contractors due to the Contractor's Work shall promptly be made good at contractor's expense.

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The OWNER's representative shall determine the resolution of any difference or conflict that may arise between the Contractor and Other Contractors or between the Contractor and the workmen of the OWNER/PROJECT MANAGER in regard to their work.

If the Works of the Contractor is delayed because of any acts or omission of another Contractor, the Contractor shall have no claim against the OWNER/PROJECT MANAGER on this account other than an extension of time for completing his Works, provided the cumulative effect of such delays does not exceed 60 (sixty) Days. If such delays exceed 60 (sixty) Days, the financial and time implications, if any, shall be mutually discussed, provided that the Contractor had notified the OWNER / PROJECT MANAGER of such acts or omissions of the other Contractor immediately upon the occurrence thereof.

The OWNER's Representative shall be notified promptly by the Contractor of any defects or delays in the Other Contractor's Works that could affect the Contractor's Works. The OWNER's Representative shall determine the corrective measures if any, required to rectify this situation after inspection of the Works and such decisions by the OWNER's Representative shall be binding on the Contractor.

The Contractor shall deploy all necessary effective manpower for coordination, expediting and construction supervision required for completion of the works to meet the stipulated quality standards & Project Schedule., In case of deficient performance of the Contractor in this regards is observed by the Owner / Project Manager, the same shall be brought out to the notice of the Contractor in writing. In case Contractor fails to remedy the performance, Owner/Project Manager will rectify the same by deployment of his own resources and the cost of the same shall be recovered from the Contractor, whether by set off against amounts payable to the Contractor under the Contract or directly, to be decided at the sole discretion of the Owner.

Should the works be suspended by reason of strike/riots by CONTRACTOR's own employees or any other cause whatsoever which relates solely to the Contractor or the Contractor's sub-contractors and/or their respective employees and personnel CONTRACTOR shall take all precautions necessary for the protection of work and make good, at his expense, any damage arising from any of these causes and shall indemnify the OWNER for any delays arising on account thereof.

**3.5 Construction Facilities, Construction Power, Construction Water Facilities, Sanitary Facilities, Telecommunication Facilities, Mail Service, Catering, Start-up Spares and Consumables**

**3.5.1** During the Contract Period, the Contractor shall arrange and pay for construction fuel necessary for the performance of the Work. Contractor shall arrange and pay for lubricants, chemicals, and other consumables in sufficient quantities, and the disposal of sewage and other Contractor generated and Sub-contractor generated wastes, as necessary, to enable Contractor and each Sub-Contractor to perform the Work until takeover of the Works.

**3.5.2 Construction Power Supplies**

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The Contractor shall be responsible for procuring power required for construction activities. However construction power may be made available at OWNER/PROJECT MANAGER's discretion at the Project Site at one point, on chargeable basis, by the OWNER and the Contractor shall make his own arrangements for further distribution of such power and shall be responsible for the maintenance of his power distribution system. The Contractor shall be responsible for payment of Energy Bills of such Construction Power till issue of Completion Certificate. The Construction Power system by its design and nature shall be a temporary system and not part of the permanent power supply.

Contractor shall be responsible for making its own assessment of the quantum of Construction Power required and shall be furnished. The Contractor acknowledges that electricity sourced from a distributing Licensee in that area through the Tata Power Company Limited may be subject to disturbances, and its interruption or non-availability for any reason shall not constitute a condition for claim of extra time or costs on part of Contractor. The Contractor shall make adequate provision for D.G. sets as a standby power source for all the activities/process, which requires uninterrupted power.

**3.5.3 Construction and Drinking Water Facilities**

The Contractor shall be responsible for procuring water required for construction and other performance of its obligations under the Contract. However, construction water may be provided by Owner/Project Manager at its discretion on chargeable basis at one point in the Project Site. Further distribution to various consumption points will be the responsibility of the Contractor. Any construction water provided by the Owner / Project Manager will be supplied on chargeable basis.

Drinking water shall be provided by Contractor for his Employees/Workmen.

**3.5.4 Sanitary Facilities**

Adequate sanitary facilities for the use of persons employed by the Contractor at the construction Site shall be provided and maintained by the Contractor to the extent and in such manner and at such places as shall be acceptable to the OWNER/PROJECT MANAGER. Separate Toilet facilities for both gents and ladies shall be provided

Contractor shall make all temporary arrangements for the treatment and discharge of sewage and drainage from or in connection with the construction and Work Site and shall maintain the same to the satisfaction of the OWNER/ PROJECT MANAGER as long as they may be required. All sanitary waste shall be treated in accordance with the Applicable law including applicable local regulations.

In this regard, Contractor shall prohibit the committing of nuisance on the site or upon the land of the OWNER/PROJECT MANAGER or of adjacent land Owner/Project Managers and any employee of Contractors or his Sub-contractors found violating this provision shall be liable to immediate dismissal.

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### 3.5.5 Canteen Facilities

The Contractor shall arrange for catering services for their staff and workers deployed on the project Site. Costs of catering services towards OWNER/PROJECT MANAGER / OWNER's Representative's Site staff would be borne by OWNER/PROJECT MANAGER / OWNER's Representative if services are availed.

### 3.5.6 Mail Service

A central mailing office shall be established and manned by the Contractor on the site where personal and business mail may be collected and delivered.

### 3.6 Access: Office Accommodations

Contractor shall provide OWNER/PROJECT MANAGER and its Engineers (including the OWNER/PROJECT MANAGER / OWNER's Representative and the Financing parties) with reasonable access to Contractor's home office and Contractor's offices at the Site and at all design, engineering, fabrication, construction and other premises of Contractor and its Sub-Contractors where activities relating to Works is carried on at all times upon reasonable prior notice, including access to design, engineering, fabrication, and testing, construction facilities, Drawings, Documents sufficient to permit OWNER/PROJECT MANAGER/OWNER's representatives to inspect Work being performed and to monitor compliance by Contractor and the Sub-contractors with the terms of the Contract and directions of Contractor.

Contractor shall provide to OWNER/PROJECT MANAGER/ OWNER's representatives as and when required appropriate office facility at the home office of Contractor.

### 3.7 Clean-Up and Waste Disposal

#### 3.7.1 The Contractor shall be responsible for keeping the entire area allocated to him clean and free from accumulation of waste Materials, rubbish/debris/etc. at all times during the period of Contract.

The Contractor shall employ enough number of specialised personnel to thoroughly clean his Work area at least once a Day and dispose of the rubbish. All such rubbish and scrap material shall be scrapped or disposed in a place to be identified by the OWNER's Representative.

Materials and stores shall be so arranged as to permit easy cleaning of the area. In areas where equipment might drip oil and cause damage to the floor surface a suitable protective cover of flame resistant, oil proof sheet shall be provided to protect the floor from such damage. Also spillage of oil and its soaking into soil shall be prevented. In case garbage are found disposed in areas other than allotted to the contractor, then the same shall be cleared by the OWNER/PROJECT MANAGER and the charges debited to the concerned Contractor.

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Contractor's labour camp and housing colony shall be maintained to the good standards of hygiene and shall be kept reasonably free of debris, litter and mal-odour.

Similarly the labour colony, offices and residential areas of Contractor's employees and workmen shall be kept clean and neat to the entire satisfaction of the OWNER's Representative. Proper sanitary arrangements shall be provided by the Contractor in the Work areas, office and residential areas of the Contractor.

The Contractor shall cause all Sub-contractors, at all times to keep the Site reasonably clean and otherwise free from accumulation of waste materials, rubbish, other debris resulting from performance of the Work. In case Owner/Project Manager is not satisfied regarding contractor his subcontractors cleanliness at site, Owner/Project Manager will notify regarding the same to the Contractor. In case of non-improvement / satisfaction, Owner/Project Manager will get the site cleaned and the charges of the same will be debited to Contractors account.

**3.7.2** All soil, filth or other matter of an offensive nature taken out of any excavation, trench, sewer, drain, cesspool etc shall not be deposited on the surface, but shall at once be carted away by the Contractor to some pit or place suitably arranged by him away from the site of work and approved by local authorities.

**3.7.3** As a part of the work included in this Contract, the Contractor shall completely remove and satisfactorily dispose of all temporary works to the extent directed. He shall tear down and dispose off all temporary buildings, shall remove or grade, to the extent directed, all embankments or coffer dams made for construction purposes shall remove all plant and equipment, shall satisfactorily dispose of all rubbish resulting from the operations under this Contract and shall do all work necessary to restore the territory embraced within the site of his operations to at least as good order and conditions as at the beginning of the work under this Contract.

**3.7.4** With regards to solid waste management, **Contractor** shall comply with Notification dated 29-March-2016 (Published in Gazette of India, Part II, Section 3, Subsection (ii)) by Ministry of Environment, Forest & climate change, Govt of India.

**3.8 Reporting Requirements**

**3.8.1** Prior to commencement of the Contract Agreement, Contractor shall deliver to OWNER/PROJECT MANAGER/ OWNER's Representative a computer-based network Schedule in hard copy as well as a soft copy (licensed software in one computer of the Owner) in accordance with the Contract.

**3.8.2** Progress scheduling report shall be provided by the Contractor to the OWNER/PROJECT MANAGER in accordance with the Contract including, but not limited to, requirements indicated in the Specification. Contractor shall be responsible for,

- a) Ensuring that performance of the Work proceeds in accordance with the network Schedule and

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**b) Co-ordinating the activities of all Sub-contractors.**

Contractor to have / arrange Video Conferencing facility at his HO & manufacturing plants and project site for project status reviews / discussions.

Contractor and his sub contractors will comply & follow the online document management systems requirements of the Owner / Project Manager.

**3.8.3 Daily Diary and Progress Reports**

A daily diary register will be kept in the OWNER/PROJECT MANAGER'S office. The Contractor will supply all detailed information every day at 9.00 hours for the day preceding and the diary will be jointly signed by the OWNER/PROJECT MANAGER/ OWNER'S Representative and the Contractor's representatives, every day in token of its correctness. A works instruction book, serially numbered will also be kept in the OWNER/PROJECT MANAGER'S office and all day-to-day instructions will be given in that book. The Contractor's representative shall report everyday to see these instructions and sign them at the bottom in token of his having seen them.

The CONTRACTOR shall supply all information regarding procurement of materials and progress of construction work, as is required by the ENGINEER for compiling the weekly progress reports. This information shall be supplied by 9.00 hours on every Monday, for the preceding week.

The CONTRACTOR shall furnish the ENGINEER with two levels of report (Weekly & Monthly) as per the format as approved by OWNER/PROJECT MANAGER.

Apart from this the CONTRACTOR is required to submit a daily report of the skilled labour and plant, equipment and other resources deployed by him at the project site. This shall include the resources of the sub-CONTRACTOR if any.

**3.9 Schedule**

**3.9.1** Time is the essence of this contract. The CONTRACTOR shall, within one week of receipt of the Letter of Intent has to submit to the OWNER for his approval, a detailed work schedule adhering to the timeline as stated in Special Conditions of Contract, before starting the Work to achieve completion schedule both interim and ultimate. After the OWNER has agreed with the schedule, the CONTRACTOR shall prepare detailed program of each work front/activity breaking it down giving daily quantifiable/measure of progress. The schedules are to be reviewed periodically with the OWNER to ensure that the completion date will be met or to institute corrective steps (at no extra cost to the OWNER) to adhere to the completion dates. The OWNER reserves the right to revise the schedule at his discretion in order ensure completion within the completion date and to suit the Project requirement and such alterations shall not entitle the CONTRACTOR to any extra payment. The Contractor shall provide to the OWNER/ PROJECT MANAGER for approval within the time stated in clause 3.8.1 the programme for the execution of the contract, showing (a) the sequence and timing of activities by which the contractor proposes to carry out the work and (b) the times by which the Contractor requires the OWNER/PROJECT MANAGER to

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furnish any OWNER/PROJECT MANAGER's inputs as set forth in the specifications, which as and when approved shall form the Schedule.

**3.9.2** Without prejudice and in addition to the foregoing the Contractor shall prepare and furnish to OWNER/PROJECT MANAGER updated monthly schedules of the Work to be performed, including a critical path schedule.

**3.9.3** Not Used.

**3.9.4** The Schedule that is updated on a Monthly basis shall be done from the basic schedules which together with the updated monthly Schedule shall be available in a computer system to which the OWNER/PROJECT MANAGER/OWNER's Representative will have access to facilitate the OWNER/PROJECT MANAGER to review the various levels to independently analyse the relevant information. This, however, does not take away the responsibility of the Contractor to fulfil all his obligations under the Contract, including informing the OWNER/PROJECT MANAGER/OWNER's Representative about the delays as also the expected delays and the actual plans to overcome such delays.

**3.9.5** CONTRACTOR shall arrange for the mobilisation of all equipment, material, personnel and all other resources to progress the work at the site to suit the completion dates of the Works. No financial, time extension or other claims for idling or under-utilisation of CONTRACTOR's resources will be entertained or paid by OWNER unless certified by OWNER's ENGINEER.

**3.9.6** CONTRACTOR shall identify suitable quarries for uninterrupted supply of coarse and fine aggregates and sources of all other construction materials and make necessary arrangements for transportation of the same at its own cost. If quarries and sources of other materials are located faraway, CONTRACTOR shall at all times have reserve storage of all the construction materials so as not to affect the required rate of progress.

**3.10 Taxes**

**3.10.1 Taxes to the Contractor's Account**

- i) The price quoted by the Contractor in the Schedule of Quantities mentioned elsewhere in the Contract are inclusive of applicable taxes including CGST, SGST IGST , custom duty, royalties and/or any other duty/tax levied by Central, State Governments, local bodies or other Public bodies. The tax component (CGST, SGST & IGST) shall be shown separately in price breakup.

The agreed rates and price shall be deemed to include all materials, labour, plant & equipment and everything necessary to satisfactorily the agreed contract works, rates shall also include for everything in the Technical specifications & all activities/things required to complete the particular item. The rates shall be firm till the tenancy of Contract and shall not be subject to escalation on any ground whatsoever. The Contractor when called for by the OWNER/PROJECT MANAGER shall furnish detailed analysis in support of the rates quoted by him against each item

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of the Contract. The OWNER/PROJECT MANAGER reserves the right to utilise the analysis thus supplied in settling any deviations or claims arising out of this Contract.

- ii) Except as otherwise specifically provided in the Contract irrespective of the mode of Contracting, the Contractor shall bear and pay all taxes, duties, levies, charges, interest and penalties and the like levied and /or assessed on the Contractor, its Sub-contractors, or their employees, by all municipal, local bodies, state or national government authorities or any other Government Instrumentality in connection with the Works.
- iii) The Contractor, hereby agrees to indemnify and keep indemnified and saved harmless at all times the OWNER / PROJECT MANAGER against any loss, Cost, expenses or damages suffered or incurred by it, by reason of its failure to pay taxes, duties, etc which it is obliged to pay pursuant to the provisions of this clause and / or arising out of its failure to comply with its obligations under this clause.
- iv) The OWNER/PROJECT MANAGER shall recover from the Contractor and / or adjust from the Contract Price all taxes, duties, levies, charges, interest and penalties and the like leviable and / or assessable on the Contractor, its Sub-contractors or their employees but levied and / or assessed on the OWNER/PROJECT MANAGER as a representative assessee / agent of the Contractor, its Sub-contractors or their employees, by all municipal, local, state or national government authorities or any other Government Instrumentality in connection with the Work.
- v) Further the OWNER/PROJECT MANAGER shall recover from the Contractor and / or adjust from the Contract Price, simple interest at the rate of Short term Prime lending Rate of State Bank of India from the date of payment of all taxes, duties, levies, charges, interest and penalties and the like leviable and / or assessable on the Contractor, its Sub-contractors or their employees but levied and / or assessable on the OWNER/PROJECT MANAGER as a representative assessee / agent of the Contractor, its Sub-contractors or their employees, by all municipal, local, state or national government authorities or any other Government Instrumentality in connection with the Work.

**3.10.2 Variation in Tax or Applicable Taxes or Introduction of New Taxes**

- i) Any statutory variation in rate of applicable Indian taxes, duties, levies etc., any variation in applicable taxes or interpretation/enforcement of the same or introduction of new taxes or the introduction/amendment of any exemptions (other than Direct taxes i.e. Income Tax, corporate tax etc), levied in India, starting from 2 (two) Days prior to the Closing Date for submission of Bid but within the Guaranteed Completion Date of Works, shall be to the account of the OWNER/PROJECT MANAGER. Such adjustment shall be limited to direct transactions between the OWNER/PROJECT MANAGER and the Contractor and no amounts shall be payable on account of variation on taxes, duties and levies between the Contractor and its sub vendors/Sub-contractors/suppliers.

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- ii) Any statutory variation on account of aforementioned factors shall be reimbursed by OWNER/PROJECT MANAGER to Contractor or by the Contractor to the OWNER/PROJECT MANAGER, as the case may be, against submission of documentary evidence in support thereof. However, in case of delay, from the originally prepared network Schedule, Schedule and Guaranteed Completion Dates as may be relevant for the computation thereof, due to reasons not attributable to the OWNER/PROJECT MANAGER, any statutory variation adverse to the OWNER/PROJECT MANAGER over and above those specified under “Schedule of Quantity and Rates” as given elsewhere in the Contract, including any taxes during the delayed period shall be to the Contractor’s account and the OWNER/PROJECT MANAGER shall not be liable for the same in any manner whatsoever.
- iii) The Contractor is obligated to keep the OWNER/PROJECT MANAGER/OWNER’s Representative notified of the aforesaid statutory variations within 15(fifteen) days of such variation coming into effect.

**3.10.3** The tax invoices shall contain the details to comply with the GST Law. The Contractor shall,

- i) Furnish (electronically) and communicate to the Owner, the details of Goods or Services supplied by the 10th of the month succeeding the said tax period,
- ii) Upon discovery of any discrepancy, rectify it and shall pay the tax and interest thereof,
- iii) Furnish the returns (electronically), for the inward and outward supplies of Goods and/or Services, before the specified dates as per the GST Law,
- iv) Communicate the tax paid, credits etc. as and when credited.
- v) The Invoice should clearly state the description of the goods, quantity, sale price, tax %, and tax amount;
- vi) The Invoice should be signed by an Authorized Signatory.

Bills/Invoices in the name of The Tata Power Company Ltd. with packing lists in triplicate shall be forwarded along with the equipment.

Contractor to furnish GST Registration number in all invoices as well as Owner's GST number.

**3.10.4** In case any taxable service is provided by any Contractor who is a non-resident or who does not have an office in India, then contractor shall undertake to appoint a representative in India. The contractor shall pay the required amount of GST to this representative who in turn shall effect the payment of the tax to appropriate authority. Owner/Project Manager will not take any responsibility to pay GST.

On the basis of documentary proof of such payment of tax, the OWNER/PROJECT MANAGER would be entitled to declare the particulars thereof in his GST return.

The agreed rates against items in schedule of quantities and shall be deemed to be inclusive of GST. The Owner/Project Manager will not pay any extra cost towards GST.

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**3.10.5 Withholding taxes**

The OWNER/PROJECT MANAGER shall pay, out of the Contract Price, any withholding tax charged by any Government Instrumentality including the Government of India or any Indian State Government on the Contract or the performance of the Work pursuant to or under the Contract. The OWNER/PROJECT MANAGER shall furnish to the Contractor appropriate documentation / certificates/ challans evidencing payment of any such withholding tax.

Should any tax benefit accrue to the Contractor in Country of the Contractor / or OWNER/PROJECT MANAGER by way of deduction as expenses or as tax credit or otherwise against its tax liability, or on account of any taxes paid in India by the OWNER/PROJECT MANAGER pursuant to the Contract or any Applicable Law on account of this Contract, the Contractor shall forthwith pay the same to the OWNER/PROJECT MANAGER. The Contractor agrees and undertakes to furnish to the OWNER/PROJECT MANAGER every year till the end of the period during which the Contractor is entitled to any tax benefit in India or elsewhere pursuant to this clause or completion of its tax assessment whichever, is later, a Certificate from its independent Auditors or an independent certified public accountant acceptable to the OWNER/PROJECT MANAGER, the quantum of such tax benefit, if any, and basis for arriving at such tax benefits.

**3.10.6 Benefit of credit for tax**

For tax, levy, duty concessions Owner/Project Manager will initiate necessary applications & the procedures and will expedite the documentation / certification required in time for availing the benefits. In case of unforeseen delays from the approving authorities, contractors shall manage the implications and will carry out necessary documentation / submissions to avail these benefits at a later date once the Owner/Project Manager is in receipt of the required certificate. If, as a result of any agreement, whether existing or modified or signed in future on avoidance of double taxation between the Government of India and the Government of the Contractor’s Country or under any law, any tax benefit shall accrue to the Contractor in Country of the Contractor or by way of deduction as expenses or as tax credit or refund or otherwise against its tax liability or on account of taxes, which are paid in India by the OWNER/PROJECT MANAGER pursuant to this Contract, the benefit of such credit, deduction as expense or refund along with details shall be passed on to the OWNER/PROJECT MANAGER within 15 (fifteen) days of the receipt of such credit / refund/deduction as expense or otherwise by the Contractor/expatriate. The Contractor/its expatriates shall take immediate and appropriate action for obtaining the admissible credit or refund from such Country’s authorities and payment of the same to the OWNER/PROJECT MANAGER. The Contractor shall keep the OWNER/PROJECT MANAGER informed about the same at all times.

The Contractor shall furnish on an annual basis, a certificate from an independent Chartered Accountant confirming:

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- a) The amount of credit or refund or deduction as expense or otherwise that may be due, if any, to it on account of tax paid by the OWNER/PROJECT MANAGER in India in respect of payments under the Contract to the Contractor; and
- b) Amount of credit or refund that may be obtained or deduction as expense that may be permissible, if any, during the relevant period.

No such annual certificate is required with regard to expatriates' tax credit or refund. However, the Contractor will inform the OWNER/PROJECT MANAGER of all such credits or refunds obtained by its expatriates as aforesaid.

**3.11 Security & Safety Rules Of Owner**

**3.11.1** The site is a protected place and entry to the site is restricted. No person shall be employed or allowed on the site without the prior permission in writing from the OWNER. All persons employed or allowed at the site shall at all times conform to all regulations laid down by the OWNER.

**3.11.2** The Contractor shall strictly follow Project Security Instructions and maintain proper control on movement of his men/materials. He shall implement the procedures for entry token/passes at his cost as required. He will record entry of all incoming materials, as no materials, which are returnable, will be permitted to be removed if not recorded at the time of entry. CONTRACTOR shall strictly abide by the rules and regulations of security and safety enforced by the OWNER. CONTRACTOR shall provide proper identity cards, badges, etc., to its personnel and to its sub-contractors and their personnel whenever directed by the OWNER. CONTRACTOR shall be solely responsible for the safety and security of its personnel and equipment.

**3.11.3** Contractor shall do all things necessary or expedient to protect any and all parallel, converging and intersecting electric lines and poles, highways, access or other roads, bridges, waterways, railroads, sewer lines, natural gas pipelines, drainage ditches, culverts, fences, walls, and water lines, power or communication cables or lines and any and all physical property of others, from damage resulting directly or indirectly from performance of the Work. Without limiting the generality of the foregoing, Contractor shall maintain the access roads to the Site and all access roads within the Site, in good repair and passable at all times as well as proper drainage system. In the event that any such physical property is damaged or destroyed in the course of the performance of the Work, Contractor at his cost shall rebuild, restore or replace such damaged or destroyed physical property to full satisfaction of OWNER/PROJECT MANAGER and shall fully indemnify the Owner / Project Manager for any loss or damage suffered by the Owner / Project Manager as a result of any damage thereto from the performance of the Work, whether directly or indirectly.

**3.11.4** Contractor shall provide, and shall ensure that its Sub-contractors provide, proper and ample protection from damage or loss to the Works/other packages, the Site, equipment and construction equipment during its performance of the Work.

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**3.11.5** In the event that any of the Works are damaged or destroyed for any reason prior to acceptance of such work, Contractor shall rebuild, restore or replace the works or such items, subject to and in accordance with the Contract including Specifications. All costs irrespective of reimbursement of claims from Insurance shall be to Contractor's account.

**3.11.6** CONTRACTOR shall adopt all safety measures/provide necessary protection to already constructed foundation/structures irrespective of the sequence of construction

**3.11.6** 100% workforce of Contractor has to attend 3 day L1 and L2 safety training at Tata power skill development Institute (TPSDI), this shall be chargeable to Contractor.

**3.12 Royalties and License Fees**

**3.12.1** Contractor shall pay all required royalties and license fees with respect to proprietary rights, intellectual property licenses and agreements, and shall procure, as required, the appropriate proprietary rights, intellectual property licenses and agreements, for Materials, methods, processes, systems and Services incorporated into the Relevant Package or the Project or otherwise relating to the performance of the Work and thereafter for the purpose of operation & maintenance of the Works. Contractor should possess the valid license for the technology used in India by such Contractor from their principals/ technology providers. Contractor shall also arrange backup guarantees from their principals/ technology providers as required by the Owner/Project Manager, to demonstrate the Contractor's legal rights to use such intellectual property.

**3.13 Standard for Supplies and Performance**

**3.13.1** Without limiting any other provision of Contract including Specifications, Contractor shall perform the Work and cause his Sub-contractors to perform their Work hereunder in accordance with Good Construction Practices and standards of professional care, skill, diligence and competence generally accepted in the construction industry applicable to construction & Project management practices for Structures of similar size and type as the Works.

**3.14 Fire Protection**

**3.14.1** The Work procedures that have to be used during the construction / erection shall be those, which minimize fire hazards to the extent practicable. Combustion materials, combustible waste and rubbish shall be collected and removed from the Site at least once each Day. Fuels, oils and volatile of flammable Materials shall be stored away from the construction and equipment and material storage areas in safe containers. Untreated canvas, paper, plastic or other flammable flexible Materials shall not at all be used at Site for any other purpose unless otherwise specified. If any such Materials are received with the equipment at Site, the same

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shall be removed and replaced with acceptable material before moving into the construction or storage area.

**3.14.2** Similarly corrugated paper fabricated cartons, etc. will not be permitted in the construction area either for storage or for handling of Materials. All such Materials used shall be of waterproof and flame resistant type.

All other Materials such as working Drawings, plans, etc. which are combustible but are essential for the Works to be executed shall be protected against combustion resulting from welding sparks, cutting flames and other similar fire sources.

**3.14.3** All the Contractor's supervisory personnel and sufficient number of workers shall be trained for fire fighting and shall be assigned specific fire protection duties. Enough of such trained personnel must be available at the Site during the entire period of the Contract.

**3.14.4** The Contractor shall provide enough fire protection equipment of the types and in enough numbers for the ware-houses, office, temporary appropriate structures, labour colony area, etc. Access to such fire protection equipment, shall be easy and be kept open at all times.

**3.14.5** Not Used

**3.14.6** In the event of occurrence of fire being attributable in the opinion of the Owner / Project Manager to the contractors' negligence no extension of time will be granted.

**3.15 Contractor's Equipment and Owner/Project Manager's rights thereof**

**3.15.1** All equipment provided by the contractor & his Sub-contractors shall be certified, tested & valid by the competent Person. The Contractor shall provide all Contractor's equipment necessary to perform the Work and complete the Works. All Contractors' equipment shall, when brought on to the Site, be deemed to be exclusively intended for the execution of the Works and performance of Services. The Contractor shall not remove from the Site any such Contractor's Equipment without the consent of the OWNER/PROJECT MANAGER / OWNER's Representative. The Contractor shall nevertheless be solely liable and responsible for any loss or destruction thereof and damage thereto.

**3.15.2** The OWNER/PROJECT MANAGER shall have lien on such goods for any sum or sums, which may at any time, be due or owing to him by the Contractor, under, in respect of or by reasons of the Contract. After giving a fifteen (15) Days Notice in Writing of his intention to do so, the OWNER/PROJECT MANAGER shall be at liberty to sell and dispose of any such goods, in such manner as he shall think fit including public auction or private treaty and to apply the proceeds in or towards the satisfaction of such sum or sums due as aforesaid.

**3.16 Access Route to & at site**

The Contractor shall be deemed to have satisfied himself as to the suitability and availability of the access routes to the Site that he chooses to use. The Contractor shall (as between the

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Parties) be responsible for the maintenance of access routes. The Contractor shall provide any signs or directions, which he may consider necessary for the guidance of his staff, labour and others. The Contractor shall obtain any permission that may be required from the relevant authorities for the use of such routes, signs and directions.

The OWNER/PROJECT MANAGER will not be responsible for any claims which may arise from the use or otherwise of any access route. The OWNER/PROJECT MANAGER does not guarantee the suitability or availability of any particular access route, and will not entertain any claim and shall not be liable for any non-suitability or non-availability for continuous use during construction of any such route.

**3.17 Insurance**

Contractor shall obtain and maintain all insurance required to be obtained by Contractor as per the Contract and as per statutory requirements including clause no. 4.0 hereof.

**3.18 Maintenance of Schedule and Milestone Schedule**

If Contractor is not performing the Work at a rate which will maintain the Schedule or the Milestone Schedule, Contractor shall at its own expense shall cause Contractor’s personnel, to work such overtime and furnish such additional personnel and construction equipment and resources as may be required to comply with the Schedule or the Milestone Schedule (as the case may be).

**3.19 Work and Safety Regulations**

**3.19.1** The Contractor shall ensure proper safety of all the workmen, Materials and equipments belonging to him or to OWNER/PROJECT MANAGER or to others, working at the Site. The Contractor shall also be responsible for provision of all safety notices and safety equipment required both by the relevant legislations and the OWNER’s Representative, as he may deem necessary.

**3.19.2** The Contractor shall notify well in advance to the OWNER’s Representative of his intention to bring to the Site Container filled with liquid or gaseous fuel or explosive or petroleum substance or such chemicals, which may involve hazards. The OWNER’s Representative shall have the right but not the obligation to prescribe the conditions, under which such container is to be stored, handled and used during the performance of the Work and the Contractor shall strictly adhere to and comply with such instructions.

**3.19.3** The OWNER’s Representative shall have the right but not obligation at his sole discretion to inspect any such container or such construction plant/equipment for which Material in the Container is required to be used and if in his opinion, its use is not safe, he may forbid its use. No claim due to such prohibition shall be entertained by the OWNER/PROJECT MANAGER and the OWNER/PROJECT MANAGER shall not entertain any claim of the Contractor towards

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additional safety provisions / conditions to be provided for / constructed as per OWNER's Representative's Instructions.

- 3.19.4** Wherever it is necessary to provide and / or store petroleum products or petroleum mixtures and explosives, the Contractor shall be responsible for carrying out such provision and / or storage in accordance with the rules and regulations laid down in Petroleum Act 1934, Explosives Act 1948, and Petroleum and Carbide of Calcium Manual Published by the Chief Inspector of Explosives of India as well as other relevant and Applicable Laws, rules and regulations. All such storage shall have prior approval of the OWNER's Representative. In case, any approvals are necessary from the Chief Inspector (Explosives) or any statutory authorities, the Contractor shall be responsible for obtaining the same. Notwithstanding anything contained herein, the Contractor shall not store any petroleum products or petroleum mixtures or any other explosive material in the Site for a period in excess of 7 days, without the prior written consent of the Owner's Representative.
- 3.19.5** All equipment used in construction and erection by Contractor or his Sub contractors shall meet Indian and International Standards of safety and where such standards do not exist, the Contractor shall ensure these to be absolutely safe. All equipment shall be strictly operated and maintained by the Contractor or his Sub contractors in accordance with Manufacturer's operation manual and safety instructions and as per Guidelines and Rules of the OWNER/PROJECT MANAGER in this regard.
- 3.19.6** Periodical Examinations and all Tests for all lifting/hoisting equipment and tackles shall be carried out in accordance with the relevant provisions of Factories Act 1948, Indian Electricity Act 2003 and all relevant Law/Rules in force from time to time. A register of such examinations and Test shall be properly maintained by the Contractor and will be promptly produced as and when desired by OWNER's Representative or by the Person authorised by him.
- 3.19.7** The Contractor shall provide suitable safety equipment of prescribed standard to all employees and workmen according to the need, as may be directed by OWNER's Representative who will also have right to examine these safety equipment to determine their suitability, reliability, acceptability and adaptability.
- 3.19.8** Where explosives are to be used, the same shall be used under the direct control and supervision of an expert, experienced, qualified and competent Person strictly in accordance with the Code of Practices/Rules framed under relevant laws, rules and regulations not restricted to Indian Explosives Act pertaining to handling, storage and use of explosives.
- 3.19.9** The Contractor shall provide safe working conditions to all workmen and employees at the Site including safe means of access, railings, stairs, ladders, scaffoldings, etc. The scaffoldings shall be erected under the control and supervision of and experienced and competent Person. For erection, good and standard quality of material only shall be used by the Contractor.

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**3.19.10** The Contractor or his Sub contractors shall not interfere or disturb electric fuses, wiring and other electrical equipment belonging to the OWNER/PROJECT MANAGER or other Contractors under any circumstance, whatsoever, unless expressly permitted in Writing by the OWNER/PROJECT MANAGER to handle such fuses, wiring or electrical equipment.

**3.19.11** Before the Contractor or his Sub contractors connects any electrical appliances to any plug or socket belonging to the other Contractor or OWNER/PROJECT MANAGER, he shall:

- a) Satisfy the OWNER's Representative that the appliance is in good working condition
- b) Inform the OWNER's Representative of the maximum current rating, voltage and phases of the appliances
- c) Obtain permission of the OWNER's Representative detailing the sockets to which the appliance may be connected.

**3.19.12** The OWNER's Representative will not grant permission to connect until he is satisfied that:

- a) The appliance is in good condition and fitted with a suitable plug.
- b) The appliance is fitted with a suitable cable having two earth conductors, one of which shall be an earthed metal sheath surrounding the cores.

**3.19.13** No electric cable used by the other Contractor/OWNER/PROJECT MANAGER will be disturbed without prior permission. No weight of any description will be imposed on any cable and no ladder or similar equipment will rest against or attached to it.

**3.19.14** No repair work shall be carried out on any live equipment. The equipment shall/must be declared safe by OWNER's Representative and a permit to Work shall be issued by OWNER's Representative before any repair work is carried out by the Contractor or his Sub contractors. While working on electric lines/equipments whether live or dead, suitable type and sufficient quantity of tools will have to be provided by Contractor or his Subcontractors to electricians/workmen/officers.

**3.19.15** The Contractor shall employ necessary number of qualified, full time Electricians/Electrical Supervisors to maintain his temporary electrical installations.

**3.19.16** The Contractor employing more workmen than specified under Factories Act 1948 whether temporary, casual, probationer, regular or permanent or on Contract, shall employ at least required numbers of full time officers exclusively as Safety Officer to supervise the safety aspects of the equipment and workmen who will coordinate with the Project Safety Officer and OWNER's Representative. In case of Work being carried out through Sub-contractors, the Sub-contractor's workmen/employees will also be considered as the Contractor's workmen/employees for above purpose.

The name and address of such Safety Officers of Contractor will be promptly informed in Writing to OWNER's Representative with a copy to Safety officer-in-charge before he starts

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Work or immediately after any change of the incumbent is made during currency of the Contract.

**3.19.17** In case any accident occurs during the construction/ erection or other associated activities undertaken by the Contractor thereby causing any minor, major or fatal injuries to his employees due to any reason, whatsoever, it shall be the responsibility of the Contractor to promptly inform the same to the OWNER's Representative in prescribed form and also to all the authorities envisaged under the Applicable Laws.

**3.19.18** The OWNER's Representative shall have the right at his sole discretion to stop the Work, if in his opinion the Work is being carried out in such a way that it may cause accidents and endanger the safety of the persons and/or property, and/or equipment. In such cases, the Contractor shall be informed in Writing about the nature of hazards and possible injury/accident and he shall comply with the instructions of the OWNER's Representative including removal of shortcomings promptly. The Contractor after stopping the specific Work, can, if felt necessary, appeal against the order of stoppage of Work within 3 (three) Days of such stoppage of Work and OWNER/PROJECT MANAGER's decision in this respect shall be conclusive and binding on the Contractor.

**3.19.19** The Contractor shall not be entitled for any damages/compensation for stoppage of Work due to safety reasons as provided in clause 3.19.18 above and the period of such stoppage of Work will not be taken as an extension of time for completion of Work and will not be the ground for waiver of levy of Liquidated Damages.

**3.19.20** The Contractor and his Sub contractors shall follow and comply with all Safety Rules, relevant provisions of Applicable Laws pertaining to safety of workmen, employees, Works and equipment as may be prescribed from time to time without any demur, protest or contest or reservation.

**3.19.21**

Contractor shall engage Tata Power Skill Development Institute (TPSDI) certified labour force at the site for execution of the job. Requirement & fees for TPSDI certification shall be as per Company Policy.

**3.20 Employee Identification, Project Site Security and Protection of Project Site**

**3.20.1** Contractor shall provide a method which shall be subject to the reasonable approval of Owner/Project Manager, of checking the employees of Contractor, the Subcontractors, Owner/Project Manager and Owner's/Project Manager's other suppliers and Contractors in and out of the areas in which the Work is to be performed under the Contract.

**3.20.2** Contractor's employees shall wear identification badges provided by the Owner's Representative while on Work at Site.

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**3.20.3** Contractor shall be responsible for the security of the Works and the Site at all times and the Goods therein while the Work is being performed or Goods are being supplied up to the earliest of:

- a) Final take over and issuance of completion certificate
- b) The transfer of care, custody and control of the Works as a whole to Owner /Project Manager with the concurrence of the Owner/Project Manager, or
- c) Termination of the Contract.

**3.20.4** Contractor shall do all things necessary or expedient to protect any and all parallel, converging and intersecting electric lines and poles, highways, access or other roads, bridges, waterways, railroads, sewer lines, natural gas pipelines, drainage ditches, culverts, fences, walls, and water lines, power or communication cables or lines and any and all physical property of others, from damage resulting directly or indirectly from performance of the Work or in supply and transport of Goods. Without limiting the generality of the foregoing, Contractor shall maintain the access roads to the Site and all access roads within the Site in good condition and passable at all times as well as proper drainage system. In the event that any such physical property is damaged or destroyed in the course of the performance of the Work or in supply and transport of Goods, Contractor at his cost shall rebuild, restore or replace such damaged or destroyed physical property to full satisfaction of Owner/Project Manager.

**3.20.5** Contractor shall provide, and shall ensure that its Sub-contractors provide, proper and ample protection from damage or loss to the Relevant Package, the Site, equipment and construction equipment during its performance of the Work.

**3.20.6** In the event that any of the Relevant Package or Works are damaged or destroyed for any reason prior to acceptance and Final takeover of such Relevant Package or Works, Contractor shall rebuild, restore or replace the Relevant Package/Works or such items, subject to and in accordance with the Contract. All costs irrespective of reimbursement of claims from Insurance shall be to Contractor's account.

**3.21 Safety Programme and Policy**

**3.21.1** All requirements in the Safety Terms & Conditions enclosed with the Contract are mandatory and to be adhered by the contractor in totality. Contractor shall, and shall cause all Sub-contractors to, implement and administer a safety program for the Relevant Package, subject to the approval of the Owner/Project Manager (which shall not be unreasonably withheld), which shall include:

- a) Development of a safety manual (the "Safety Manual") establishing safety guidelines and requirements for Contractor, Sub-contractor (including a fall prevention program). Copies of this manual shall be provided to Owner/Project Manager and Owner's Representative

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immediately upon its development and Contractor shall incorporate into such Safety Manual any and all reasonable comments of Owner/Project Manager;

- b) Conducting of weekly safety meetings with the employees and agents of Owner/Project Manager, Contractor, Sub-contractor and Owner’s other Contractors and their Sub-contractors;
- c) Development, implementation and enforcement of procedures for advising employees and agents of Owner/Project Manager, Contractor, Sub-contractor and Owner’s other Contractors and their Sub-contractors of, and correction of, safety violations and deficiencies;
- d) Taking of all other actions necessary to provide a safe Work environment in accordance with Applicable Laws and Applicable Permits. Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to avoid damage, injury or loss to:
  - i) All persons employed by the Owner/Project Manager, Contractor and its Sub-contractors and Owner’s other Contractors and their Sub-contractors in connection with the Work or supply of Goods or Owner/Project Manager and its Contractors and Sub-contractors (whether in the performance of their obligations under the Contract or otherwise) and all other persons who may be affected by the performance of the Work or supply of Goods or any of such persons.
  - ii) All supplies used in connection with the Relevant Package and all equipments to be incorporated into the Relevant Package, whether in storage on or off the Site under the care, custody or control of Owner/Project Manager, Contractor, any Sub-contractor or Owner’s other Contractors and their Sub-contractors.
- e) At all times (including during Commissioning, start-up, testing and Initial Operation, and Tests before Take Over including Performance Tests) Contractor shall require all Sub-contractors working on or supplying equipments or construction equipment to the Site to comply with all safety requirements in effect at all such times and of all Applicable Laws and Applicable Permits. Contractor shall, and shall cause the Sub-contractors to, comply with all Applicable Laws and Applicable Permits.  
Contractor shall comply with the Owner’s/Project Manager’s Contract Safety Manual document.

**3.22 Affirmative Action:**

**3.22.1** The Owner recognizes that diversity in the workplace positively impacts business. The Owner commits itself in helping people from SC/ST background either by helping them to become entrepreneurs or by engaging workforce from SC/ST community under the contracts agreed herein. To encourage engaging SC/ST community, the owner may agree to incentivize the Contractor by paying additional 1% of the contract value, if the number of SC/ST workforce engaged in the contract exceeds 30% of the total deployed strength and 2%, if the strength goes beyond 50%. While the Contractor will assist the workforce so engaged to become self-reliant in meeting the work expectation, the Owner will also volunteer its training resources to the extent possible to improve their employability.

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The Contractor shall maintain the proper documentation of such category of the workforce engaged and the owner shall pay the incentive after its verification.

#### **4. INSURANCE**

##### **4.1 Rented Equipment**

All construction equipment shall be brought to and kept at the Site at the sole cost, risk and expense of Contractor, and OWNER/PROJECT MANAGER shall not be liable for any loss or damage thereto, except to the extent any such loss or damage is caused solely by the OWNER/PROJECT MANAGER. Contractor shall maintain adequate, appropriate and prudent insurance with respect to such construction equipment.

Any Insurance policy carried by the Contractor, any Sub-contractor or any third party on or in respect of any construction equipment shall provide for waiver of the underwriter's right to subrogation against OWNER/PROJECT MANAGER, the Financing parties, their assignees, subsidiaries, parent companies, affiliates, employees, insurers and underwriters. Contractor shall obtain adequate insurance to cover all construction equipment rented or leased from third parties.

##### **4.2 Statutory Insurance Benefits**

Contractor shall maintain with respect to the Work to be done under the Contract, in each applicable jurisdiction, all statutory insurance benefits and other insurance required by law including, without limitation, unemployment Insurance.

##### **4.3 Third Party Insurance**

Contractor shall at its sole expense, in the joint names of OWNER/PROJECT MANAGER and Contractor prior to the commencement of any Work on the Site, pursuant to the Contract, obtain adequate insurance, against liability for damage or death of or personal injury occurring before Final Performance Acceptance to any Person (including any employee of the insured parties) or to any property due to or arising out of the performance or non performance of the Work by Contractor or any Sub-contractors and other third party liabilities on account of obstruction, loss of amenity, trespass, nuisance or advertising pursuant to the Contract.

##### **4.4 Automobile Liability Insurance**

Contractor shall, at its sole expense and in the joint names of OWNER/PROJECT MANAGER and Contractor, shall maintain automobile liability insurance covering all owned, non-owned and hired automobiles, trucks and other vehicles used by Contractor or its Subcontractors in connection with the Work.

##### **4.5 Insurance against Accident, etc. to Workmen and Other Insurances**

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Contractor shall, at its sole expense, insure and shall maintain Insurance as required by Indian and all other Applicable Laws for all actions, suits, claims, demands, costs, charges and expenses arising in connection with the death of or injury to any person employed by Contractor or its Subcontractors for the purpose of the performance of the Work. Contractor shall also maintain Contractor’s All Risk (CAR) insurance.

In addition, Contractor shall obtain and maintain all other Insurances required to be obtained and maintained by it for fulfilling all his obligations under the Contract including Insurances against damages to designs and the like arising out of Services.

**4.6 General Insurance Requirements**

All insurance obtained by Contractor shall be maintained with an insurer approved by the OWNER/PROJECT MANAGER.

On or prior to the Commencement Date of Contract, Contractor shall furnish to the Financing Parties and OWNER/PROJECT MANAGER certificates of Insurance (or if one of the Financing parties, OWNER/PROJECT MANAGER or OWNER’s Representative so directs, copies of the actual insurance policies signed by an authorised Representative of the insurer) from each Insurance carrier showing that the above required Insurance is in force, the amount of the carrier's liability there under, and further providing that the Insurance will not be cancelled, changed or not renewed until the expiration of at least 90 (ninety) Days (to the extent obtainable under commercially reasonable terms) after written notice of such cancellation, change or non-renewal has been received by OWNER / PROJECT MANAGER and the Financing Parties and Contractor. All policies and certificates of Insurance affected in accordance with this clause shall be in form and content acceptable to OWNER/PROJECT MANAGER and Financing Parties.

**4.7 Remedy on Failure to Insure**

If Contractor fails to effect and keep in force the Insurance for which it is responsible under the Contract, OWNER/PROJECT MANAGER may effect and keep in force any such Insurance, and pay such premiums as may be necessary for that purpose, and from time to time, after issuance of a reimbursement request thereof accompanied by relevant supporting documentation, deduct the amount so paid by OWNER/PROJECT MANAGER from any amounts due or which may become due to the Contractor under the Contract.

**4.8 Descriptions not Limitations**

The Insurance coverage referred to in this clause no. 4.0 shall be set forth in full in the respective policy forms, and the foregoing descriptions of such policies are not intended to be complete, nor to alter or amend any provision of the actual policies and in matters, if any, in which the said description may be conflicting with such instruments, the provisions of the policies of the Insurance mutually agreed by the Parties shall govern; provided, however, that neither the content of any Insurance policy or certificate nor OWNER/PROJECT MANAGER’s approval thereof shall relieve the Contractor of any of its obligations under the Contract.

**4.9 Fire Insurance**

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Unless otherwise instructed by the OWNER/PROJECT MANAGER, the Contractor shall on signing the Contract insure the works and keep them insured until the completion of the Contract against loss or damage by fire with a company to be approved by the OWNER/PROJECT MANAGER, in the joint names of the OWNER/PROJECT MANAGER and the Contractor for such amount and for any further sum if called upon to do so by the OWNER/PROJECT MANAGER, the premium of such further sum being allowed to the Contractor as an authorised extra. Such policy shall cover the property of the OWNER/PROJECT MANAGER only and shall not cover any property of the Contractor or of any of his approved Sub- Contractor or employees. The Contractor shall deposit the policy and receipts for the premiums with the OWNER/PROJECT MANAGER within twenty-one days from the date of signing the Contract unless otherwise instructed by the OWNER/PROJECT MANAGER. In default of the Contractor not insuring as provided above, the OWNER/PROJECT MANAGER /OWNER’S Representative on his behalf may so insure and may deduct the premiums paid from any money due, or which may become due to the Contractor. The Contractor shall, as soon as the claim under the policy is settled, or the work reinstated by the Insurance Office should they elect to do so, proceed with all due diligence with the completion of the works in the same manner as though the fire had not occurred and in all respects under the same conditions of Contract. The Contractor, in case of rebuilding or reinstatement after fire, shall be entitled to such extension of time for completion, as the OWNER/PROJECT MANAGER may deem fit.

Notwithstanding the above, the Contractor shall provide adequate portable fire extinguishers in his work area and take all adequate precautions against fire hazard and train regularly his supervisors/workmen in fire fighting techniques.

In the event of occurrence of any fire being attributable in the opinion of the OWNER/PROJECT MANAGER /OWNER’S Representative to the Contractor's negligence, no extension of time will be granted.

**4.10 Damages to Persons & Property Insurance in Respect of**

**4.10.1** The CONTRACTOR shall be responsible for all injury to persons, animals or things, and for all damage to the structural and/or decorative part of property which may arise from the operations or neglect of himself or of any of his approved SUB-CONTRACTOR or of any of his or his approved SUB-CONTRACTOR's employees, whether such injury or damage arises from carelessness, accident or any other cause whatever in any way connected with the carrying out of this Contract. The CONTRACTOR shall indemnify the OWNER/PROJECT MANAGER and hold him harmless in respect of all and any losses arising from any such injury or damage to person or property as aforesaid and also in respect of injury or damage under any applicable laws and also in respect of any award of compensation or damages consequent upon a claim in relation to such injury by a third party.

The Contractor shall have to cover personal third party insurance as per labour law/statuary requirements/applicable laws of state Government per person per incident. Third party insurance for damage to surrounding property shall be maintained by the Contractor per labour law/statuary requirements/applicable laws of state Government

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**4.10.2** The CONTRACTOR shall reinstate at his cost all damages of every sort mentioned in this clause, so as to deliver the whole of the Contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

**4.10.3** The CONTRACTOR shall indemnify the OWNER/PROJECT MANAGER against all claims which may be made against the OWNER/PROJECT MANAGER by any member of the public, or other third party in respect of anything which may arise in respect of the works or in consequence thereof and shall at his own expense arrange to effect and maintain, until the completion of the Contract with an approved nationalised insurance company, a Policy of Insurance in the joint names of the OWNER/PROJECT MANAGER and the CONTRACTOR against such risks and deposit such policy or policies with the ENGINEER from time to time during the currency of this Contract. The CONTRACTOR shall also indemnify the OWNER/PROJECT MANAGER against all claims which may be made upon the OWNER/PROJECT MANAGER, whether under the Workmen's Compensation Act or any other Statute in force during the currency of this Contract or at common law in respect of any employee of the CONTRACTOR or any of his approved SUB-CONTRACTOR and shall at his own expense effect and maintain, until the completion of the Contract, with an approved nationalised insurance company, a Policy of Insurance in the joint names of the OWNER/PROJECT MANAGER and the CONTRACTOR against such risks and deposit such Policy or Policies with the ENGINEER from time to time during the currency of this Contract.

The CONTRACTOR shall be responsible and liable to the Owner for all losses, which may be excluded from the Insurance Policies above referred to and also for all other damage to any property arising out of or incidental to the negligent or defective carrying out of this Contract.

**4.10.4** The CONTRACTOR shall also indemnify the OWNER/PROJECT MANAGER in respect of any costs, charges or expenses arising out of any claim or proceedings and also in respect of any award of compensation of damage arising on account of the above.

**4.10.5** The OWNER/PROJECT MANAGER/ENGINEER shall be at liberty and is hereby empowered to deduct the amount of any damages, compensation costs, charges and expenses arising or accruing from or in respect of any such claim or damage from any sum due or to become due to the CONTRACTOR.

**4.10.6** The OWNER/PROJECT MANAGER and/or ENGINEER shall not be responsible or be held liable for any damage to person or property consequent upon use, misuse or failure of any construction tools and equipment used by the CONTRACTOR or any of his SUB-CONTRACTORS even though such construction tools and equipment be furnished, rented or loaned to the CONTRACTOR or his SUB-CONTRACTORS by the OWNER/PROJECT MANAGER. The acceptance and/or use of any construction tools and equipment by the CONTRACTOR or his SUB-CONTRACTORS shall be construed to mean that the CONTRACTOR accepts all responsibility for and agrees to indemnify and save harmless, the OWNER/PROJECT MANAGER and/or the ENGINEER from any and all claims for said damages resulting from said use, misuse or failure of such construction tools and equipment for which the OWNER/PROJECT MANAGER may be liable.

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**5. FOSSILS, INSPECTION & TESTING**

**5.1** All fossils, coins, articles of value or antiquity, human remains and structures and other remains or things of geological or archaeological or religious or artistic interest or monetary value discovered on the Site shall be the property of the OWNER/PROJECT MANAGER, except as required under applicable law. The Contractor shall take reasonable precautions to prevent his staff, labour or other persons from removing or damaging any such article or thing. The Contractor shall, immediately upon discovery of such article or thing, advise the OWNER/PROJECT MANAGER or OWNER's Representative

**5.2 Inspection and Testing**

**5.2.1** Contractor shall perform all inspection, expediting and quality surveillance as may be required for performance of the Services. Contractor's responsibilities under this sub-clause shall include, without limitation, inspecting all supplies, Materials and equipment that comprise or will comprise the Relevant Package or that are to be used in performance of the Works.

**5.2.2** The Contractor shall at its own expense carry out at the place of manufacture and/or on the site carry out all such tests &/or inspections of the plant & equipment and any part of the facilities as are specified in the contract. The Contractor shall carry out the inspection and quality control aspects as set out in Technical Specification. In the event the Owner/Project Manager establishes that the Contractor is not carrying out all such inspection and quality control aspects, the Owner/Project Manager has the right to appoint at Contractor's cost third party inspection agencies.

**5.2.3** The Contractor shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Owner/Project Manager (or their designated representatives) to attend the test and/or inspection. Contractor / Contractor's third party inspection agency shall perform such detailed inspection of all work in progress at intervals appropriate to the stage of design, engineering, procurement, fabrication, construction, erection, testing, Commissioning, start-up or Tests before Provisional Acceptance as is necessary to ensure that such work is proceeding in accordance with the Contract, the Documents, Applicable Laws, Applicable Permits, Good Engineering Practices and Prudent Electricity Industry Practice and to protect Owner/Project Manager against defects and deficiencies in such work (including any which would diminish or void the ability of Owner/Project Manager or Contractor to realise upon any manufacturer's or supplier's warranty or under any applicable insurance coverage). On the basis of such inspections, Contractor shall keep Owner/Project Manager continuously informed of the progress and quality of all work, whether performed by Contractor or any Sub-contractor, and shall provide Owner/Project Manager with Written reports which shall contain notwithstanding anything to the contrary contained herein defects and deficiencies revealed through such inspections and of measures proposed by Contractor to remedy such defects and deficiencies. Owner/Project Manager or Owner's Representative shall have the option, at Owner's /Project Manager's expense, of being present at all such inspections, and the Contractor shall give notice of all such inspections agreed.

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- 5.2.4** In the event that the progress and quality of the work is not proceeding in accordance with the Contract, Owner/Project Manager or Owner’s Representative shall be entitled to make recommendations to Contractor or any Sub-contractor for the purpose of remedying such failure and any such defects and deficiencies or variances. Any inspection performed or not performed by Owner/Project Manager hereunder shall not be a waiver of any of Contractor’s obligations under the Contract or be construed as an approval or acceptance of any of the work or Services hereunder or absolve the Contractor in any manner of its liabilities, responsibilities and obligations under the Contract.
- 5.2.5** The Contractor shall, where required give due notice to the Owner/Project Manager/Owner’s Representative whenever such work is ready before covering up or putting out of view. The Owner’s Representative shall then either carry out the inspection, examination, measurement or testing or notify the Contractor that it is considered unnecessary.
- 5.2.6** The Owner’s Representative shall have the right to re-inspect any work though previously inspected and approved by him at the Site, before and after the same are erected. If by the above inspection the Owner’s Representative rejects any work, the Contractor shall make good for such rejections either by replacement or modifications/ repairs as may be necessary to the satisfaction of the Owner’s Representative.
- 5.2.7** The Owner/Project Manager and the Owner’s Representative shall be entitled, during design, engineering, manufacture, fabrication and preparation at any places where work is being carried out, to inspect, examine and test the materials and workmanship, and to check the progress in the performance of the work at no extra cost to the Owner/Project Manager. The Contractor shall give all reasonable facilities and assistance, including access to Documents to carry out such inspection, examination, measurement and testing. All inspection and tests shall be in line with approved Inspection & Test Plans and Owner/Project Manager/Owner’s Representative shall carry out necessary inspection as per the Contract. Should any inspected work or service fail to conform to the Contract, the Owner/Project Manager may reject such work or service and the Contractor shall either replace or make alterations necessary to meet Contract requirements free of cost to the Owner/Project Manager. The Owner/Project Manager’s right to inspect, test, and where necessary, reject the work or service shall in no way be limited or waived by reason of any part of the work having previously been inspected, tested and passed by the Owner/Project Manager or Owner’s Representative.
- 5.2.8** The Contractor shall agree, with the Owner/Project Manager/Owner’s Representative about the time and place for the testing of any equipment / Materials and other parts of the Works as specified in the Contract. The Contractor shall give 15(fifteen) Days notice for inspection of indigenous Materials and 30(thirty) days for Offshore Materials. The Owner/Project Manager/Owner’s Representative shall give the Contractor not less than 24 (twenty four) hours’ notice of his intention to attend the Tests. The Contractor shall provide sufficient suitably qualified and experienced staff to carry out the Tests specified in the Contract. The Contractor shall present to the Owner/Project Manager/Owner’s Representative the calibration certificates

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of all the testing and measuring instruments proposed to be used for carrying out the Tests. In case the Owner/Project Manager/Owner's Representative is not satisfied with the calibration certificates, the Contractor shall arrange to get the concerned instrument(s) recalibrated to the satisfaction of the Owner/Project Manager/Owner's Representative.

**5.2.9** If the Owner's Representative does not attend at the time and place agreed, or if the Contractor and the Owner's Representative agree that the Owner's Representative shall not attend, the Contractor may proceed with the Tests, unless the Owner's Representative instructs the Contractor otherwise. Participation by Owner/Project Manager or Owner's Representative in or their absence from or failure to participate in any Tests (other than the Performance Tests) shall not relieve or absolve the Contractor from any Guarantee or Warranty or obligations of Services under or in pursuance of the Contract.

**5.2.10** The Contractor shall promptly forward to the Owner/Project Manager/Owner's Representative duly certified reports of the Tests.

**5.2.11** If the Owner/Project Manager/Owner's Representative requires such equipment, materials, design or workmanship to be re-tested, the Tests shall be repeated under the same terms and conditions. Contractor shall undertake an additional testing of any material, equipment or the work, if the Owner/Project Manager/Owner's Representative believes the results of earlier Tests are not accurate or do not establish the true condition to specification of equipment, material or work being tested. If such retesting demonstrate that the work, equipment or material being so tested conforms to the requirements of Contract, then Owner/Project Manager shall bear the cost of such additional Test and the cost of any required uncovering and covering the Goods or Services and shall grant the extension of time for completion, if necessary. If however such retesting confirms Owner/Project Manager/Project Manager's conclusion and cause the Owner/Project Manager to incur additional costs, such costs shall be recoverable from the Contractor by the Owner/Project Manager and may be deducted by the Owner/Project Manager from any monies due, or to become due, to the Contractor. Neither the failure by Owner/Project Manager/Owner's Representative to discover defects, nor any payment to Contractor in respect of the Tests, shall prejudice the rights of Owner/Project Manager thereafter to require and obtain from Contractor the performance of the Services in accordance with the Contract herewith. Owner/Project Manager/Project Manager shall not be deemed to have accepted any Services as a result of any additional testing.

**5.3 Rejection**

If, as a result of inspection, examination or testing, the Owner/Project Manager/Owner's Representative decides that any works, equipment, system, materials, design or workmanship has failed in such inspection, examination or tests or is defective or otherwise not in accordance with the Contract, the Owner's Representative may reject such Works, equipment, system, materials, design or workmanship and shall notify the Contractor promptly, stating his reasons. The Contractor shall then promptly correct or replace, such item or portion so as to pass retesting and otherwise meet and conform to such requirements. Following any such rejection,

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all expenses reasonably incurred by the Owner/Project Manager in consequence of such re-testing or inspection shall be borne by the Contractor. No changes to project schedule or increase in the contract price shall be granted with respect to such additional testing. Contractor shall solely bear any cost resulting there from.

## 6. DELAY AND EXTENSIONS OF TIME

- 6.1** The time allowed for carrying out the work as mentioned in the Contract shall be strictly observed by the Contractor.
- 6.2** The Contractor agrees that the work shall be commenced and carried on at such points and in the order of precedence and at such times and seasons as may be directed by the OWNER/PROJECT MANAGER in accordance with the schedule for completion of the work as outlined elsewhere in the Contract. The Contractor declares that he has familiarised himself with the site and rights-of-way, with all the local conditions, and with all the circumstances which may, or are likely to affect the performance and completion of the work, and that he has allowed for such conditions. However, if a time schedule is submitted by the Contractor so as to keep the phasing of work generally in line with the time schedule drawn up and to keep the components unchanged, such time schedule after approval from the OWNER/PROJECT MANAGER, shall be accepted and complied with by the Contractor and it shall form a part of the Contract. The progress of work will be checked at regular monthly intervals and the percentage progress achieved should be commensurate with the time elapsed after the award of the Contract.
- 6.3** If the Contractor shall desire an extension of time for completion of work on the grounds of his having been unavoidably hindered in its execution or any other ground, he shall apply in writing to the OWNER/PROJECT MANAGER within 7 days of the date of hindrance on account of which he desires such extension as aforesaid. This application shall invariably be accompanied by sufficient documentation giving reasons for seeking such extension. No application for such extension shall be entertained if it is not received in sufficient time to allow the OWNER/PROJECT MANAGER to consider it and the Contractor shall be responsible for the consequences arising in relation thereto. Upon receipt, OWNER/PROJECT MANAGER may accept or reject such application.

In the event of a disruption (other than suspension by OWNER/PROJECT MANAGER) to the Schedule and if in the opinion of Contractor it is not the responsibility of Contractor or its any Sub-contractor and which might have been caused due to action of any third parties which CONTRACTOR might not have reasonably prevented, and that Contract entitles Contractor to

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time extension and / or other relief from OWNER/PROJECT MANAGER, the Contractor shall notify the OWNER/PROJECT MANAGER within twenty four (24) hours and provide a written report (to the best of Contractor's knowledge at the time) of the disruption within 72 (Seventy Two) Hours of Contractor's learning of the disruption and such report shall be supplemented on a prudent, informative and timely basis thereafter not later than 14 (Fourteen) Days from the date of Contractor's first learning of such disruption. In such an event the Contractor may modify and resubmit for approval to OWNER/PROJECT MANAGER/OWNER's Representative computer based network schedule and modifications if any required to the Schedule. . Upon receipt, OWNER/PROJECT MANAGER shall take reasonable action in accordance with the Contract.

Contractor in any case has to inform to OWNER immediately upon learning of any possible hindrances to the Works which have caused or may cause delay or other impact to the Works to enable OWNER take suitable action.

**6.4** No necessity for an extension of time is anticipated but if untoward or extraordinary circumstances beyond the control of the Contractor should arise, which in the opinion of the OWNER/PROJECT MANAGER should entitle the Contractor to a reasonable extension of time, such extension may be granted but shall not operate to release the Contractor from any of his obligations, other than in relation to payment of liquidated damages for such delay (only to the extent of the extension granted by the OWNER / PROJECT MANAGER. For purpose of this clause, untoward and extraordinary circumstances are defined under clause 13.0 hereinafter. Under above circumstances, only extension of time may be granted but the Contractor will not be entitled to any additional compensation. In case of strike or lockout, the Contractor shall, as soon as possible, give written notice to the OWNER/PROJECT MANAGER, but the Contractor shall nevertheless constantly use his endeavours to prevent delay and shall do all that may reasonably be required to the satisfaction of the OWNER/PROJECT MANAGER to proceed with the work.

**6.5** The OWNER/PROJECT MANAGER shall have the right to order discontinuance/suspension of the work, in whole or in part, for such time as may be necessary in the opinion of OWNER. In such an event, the OWNER/PROJECT MANAGER will grant such extension of time for completion of the Contract which in its opinion is proper and/or other relief in accordance with Contract in consequence of such delay.

**6.5.1 Resumption of Work**

After receipt of permission or of instruction to proceed, the Contractor shall, after notice to the OWNER/PROJECT MANAGER, and together with the OWNER's Representative, examine the Works and Materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works or Materials, which has occurred during the suspension. The Work after resumption shall be started by the Contractor within 7 (seven) Days of receipt of permission or instruction to proceed.

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**6.6 Rate of Progress**

**6.6.1** If, at any time, the Contractor's actual progress falls behind the Schedule in any manner or it becomes apparent that it will so fall behind, the Contractor shall submit to the OWNER/PROJECT MANAGER / OWNER's Representative a revised programme taking into account the prevailing circumstances. The Contractor shall, at the same time, notify the OWNER/PROJECT MANAGER / OWNER's Representative of the steps being taken to expedite progress, so as to achieve completion within the time for completion stipulated under the Contract, including in particular the Schedule and the Guaranteed Completion Dates. The Contractor may also be asked to modify the plan, as a result of the changed circumstances due to delay, in order to complete the Work in time.

**6.6.2** If any steps taken by the Contractor in meeting his obligations under this sub clause no. 6.6 cause the OWNER/PROJECT MANAGER to incur any additional costs, such costs shall be recoverable from the Contractor by the OWNER/PROJECT MANAGER, and may be deducted by the OWNER/PROJECT MANAGER from any monies due, or that may become due, to the Contractor under the Contract or otherwise.

**6.7 Non Performance by Contractor**

**6.7.1** If the CONTRACTOR, except on account of any legal restraint upon the OWNER/PROJECT MANAGER, is preventing the continuance of the work or in case of a certificate for interim payment not paid within the period for honouring certificate, shall suspend the works or in the opinion of the ENGINEER shall neglect or fail to proceed with due diligence in the performance of his part of the Contract or if he shall more than once make default in respect of Scope of Contract, the OWNER/PROJECT MANAGER and/or the ENGINEER shall have the power to give notice in writing to the CONTRACTOR requiring that the work be proceeded within a reasonable manner and with reasonable dispatch, such notice shall purport to be a notice under this clause. After such notice shall have been given, the CONTRACTOR shall not be at liberty to remove from the site of the works or from any ground contiguous thereto any plant or materials belonging to him which shall have been placed thereon for the purpose of the works and the OWNER/PROJECT MANAGER shall have a lien upon all such plant and materials to subsist from the date of such notice being given until the notice shall have been complied with. If the CONTRACTOR shall fail for 7 days after such notice has been given to proceed with the works as therein prescribed, the OWNER/PROJECT MANAGER may proceed as provided in Clause 11.0 hereinafter.

**6.7.2** If the CONTRACTOR fails to perform as per the expectations of the OWNER/PROJECT MANAGER and consistently fails to achieve intermediate milestones as mentioned in the contract or fails to proceed with due diligence in the performance of his part of the contract or fails to make such due progress as would enable the works to be completed within period agreed, then in addition to the action proposed in clause 11 hereinafter, the OWNER/PROJECT MANAGER shall take recourse to the following (as per clause 6.7.3) :

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**6.7.3** After giving 7 days notice of non-performance to the CONTRACTOR, as per clause 11 hereinafter, the OWNER/PROJECT MANAGER shall be at liberty to remove items or part of the scope of the works of this contract and get the same executed by third party at the CONTRACTOR's risk and cost. The OWNER/PROJECT MANAGER has the right to recover the cost difference between the actual amount spent by the OWNER/PROJECT MANAGER in getting these works executed by third party and the amount that would have been payable to the CONTRACTOR at the quoted rates of this contract.

## **7. CERTIFICATE OF COMPLETION**

### **7.1 Certificate of Virtual Completion**

Upon successful provisional takeover of the Works as per the criteria defined in Special conditions of Contract, the OWNER/PROJECT MANAGER shall issue certificate of virtual completion to the Contractor.

### **7.2 Certificate of Completion**

Upon successful final takeover of the Works as per the criteria defined in Special conditions of Contract, the OWNER/PROJECT MANAGER shall issue "Certificate of completion" or "Completion certificate" to the Contractor for the Works under this Contract. Defect liability period and warranties shall commence from the date of issuance of this certificate of completion.

## **8. LIQUIDATED DAMAGES**

### **8.1 Liquidated Damages**

Liquidated Damages shall be as per Special Conditions of Contract

## **9. WARRANTIES**

### **9.1 Contractor Warranties**

Contractor warrants to OWNER/PROJECT MANAGER with respect to the Performance of Work that all construction equipment and materials comprising the Contract Works will be new, conforming to Technical Specifications and free from defective workmanship. If OWNER/PROJECT MANAGER notifies Contractor in Writing with adequate detail of any such defects or deficiencies in the Works discovered during the applicable Warranty Period thereof, Contractor shall (a) re-perform any of the work hereunder to correct any errors, omissions, defects or deficiencies in the Works, and (b) in the case of any defective equipment or materials, at Contractor's option either repair or replace at its Cost.

### **9.2 Warranty Period**

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**9.2.1** The Warranty Period for various items/systems shall be as per Technical Specifications or as per standard industry practice in the event it is not specified in Technical specifications.

**9.2.2 To Remedy Defective Work and Defect Liability Period**

If the work or any portion thereof shall be damaged in any way excepting by the acts of the OWNER/PROJECT MANAGER, or if defects not readily detected by proper inspection shall develop before the final completion and acceptance of the whole work, the Contractor shall forthwith make good, without compensation from the OWNER / PROJECT MANAGER, such damage or defects in a manner satisfactory to the OWNER/PROJECT MANAGER / OWNER's Representative. In no case shall defective or imperfect work be retained.

Duration of defect liability period shall be as stated in Special Conditions of Contract. In case any defects in the work due to bad materials and/or bad workmanship develop in the work before the expiry of this period, the Contractor on notification by the OWNER/PROJECT MANAGER shall rectify or remedy the defects at his own cost and he shall make his own arrangements to provide materials, labour, equipment and any other appliance required in this regard. The retention of Security Deposit/Performance Bank Guarantee by the OWNER/PROJECT MANAGER during this Defects Liability Period shall be as indicated in Special Conditions of Contract. In case even on due notification by the OWNER/PROJECT MANAGER, the Contractor fails to rectify or remedy the defects, the OWNER/PROJECT MANAGER shall have the right to get this done by other agencies and recover the cost incurred, by deductions from any money due or that may become due to the Contractor or from his security deposit/ Performance Bank Guarantee.

The OWNER/PROJECT MANAGER may, in lieu of such amending and making good by the Contractor, deduct from any money due to the Contractor or from his security deposit Performance Bank Guarantee, a sum to be determined by the OWNER/PROJECT MANAGER equivalent to the cost of amending such work and in the event of such security deposit/ Performance Bank Guarantee being insufficient, recover the balance from the Contractor together with any expense the OWNER/PROJECT MANAGER may have incurred in connection therewith.

The Contractor shall remain liable under the provisions of this clause notwithstanding the passing by the OWNER/PROJECT MANAGER of any certificate, final or otherwise or the passing of any accounts.

**10. INTERIM AND FINAL PAYMENTS**

**10.1** The Contractor's organisation shall maintain an independent estimate & billing division. Contractor shall be responsible for working out the detailed quantities for various items of work, from the progressive drawings, released for construction, within two months from the date of receipt of drawings. Detailed bill of quantities along with the abstract shall be submitted to the Engineer for his approval. Increase or decrease in these approved quantities due to revision in drawings or due to Engineer's instructions shall be incorporated by the Contractor and submitted to the Engineer for revised approval within 30 days from the receipt of revised drawings/instructions.

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- 10.2** Bills are to be submitted in the format approved by the Owner/Engineer. Interim / Final bills shall be submitted on the basis of work completed against these approved quantities. Payment will be released by the Owner on verification of work completed against these approved quantities. No other method for billing shall be accepted by the Owner. Each bill shall be submitted along with the detailed measurement sheets, pour cards, reconciliation statements for all the materials issued by the Owner.
- 10.3** R.A bill shall be monthly and in computerised format prepared in Microsoft-EXCEL. The bills shall be error free and accompany all the supporting documents like JMRs, quality related documents, pour card, etc. The bill shall be submitted in soft copy (non-rewritable CDs) also.
- 10.4** Any interim payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed and shall not preclude the right of OWNER/ ENGINEER from getting bad, unsound and imperfect or unskilled work to be removed and reconstructed by the CONTRACTOR or be considered as an admission of the due performance of the Contract or any part thereof in any respect or the accruing of any claim nor shall it conclude, determine or affect in any way the powers of OWNER/ENGINEER under these conditions or any of them as to the final settlement and adjustment of the payment or otherwise, or in any other way vary or affect the Contract.
- 10.5** A bill shall be submitted by the CONTRACTOR each month on or before the date fixed by the OWNER for all works executed in the previous month and OWNER shall take or cause to be taken the requisite measurement for the purpose of having the same verified. If the CONTRACTOR does not submit the bill within the time fixed as aforesaid, the ENGINEER at its discretion may depute within seven days of the date fixed as aforesaid a subordinate to measure the said work in the presence of the CONTRACTOR whose counter signature to the measurement list will be sufficient warrant and the ENGINEER may prepare a bill from such list which shall be binding on the CONTRACTOR in all respects. If the CONTRACTOR fails to countersign or to record the differences within a week from the date of measurement in the manner required by the ENGINEER then in any such event, the measurements taken by the ENGINEER or by the subordinate deputed by him as the case may be, shall be final and binding on the CONTRACTOR and the CONTRACTOR shall have no right to dispute the same.
- 10.6** The final bill shall be submitted by the CONTRACTOR within two months of the date of the certificate of completion furnished by the ENGINEER, otherwise the ENGINEER'S certificate of the measurement and the total amount payable for the work accordingly shall be final and binding on all parties.
- 10.7** The CONTRACTOR shall submit all bills in printed forms and the charges in the bills shall always be entered at the agreed rates as per the Contract or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the Contract at the rates subsequently accepted by the OWNER for such work.

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**10.8** In case work is nearly or is anticipated to be suspended, or in case only unimportant progress is being made, or in case it is apparent that the CONTRACTOR is about to forfeit his Contract or that the money yet due to him will not complete his Contract, the ENGINEER may, at his discretion, withhold any payment which may be due to the CONTRACTOR.

**10.9** The CONTRACTOR shall not demand, nor be entitled to receive payment for the work any portion thereof except, in the manner set forth in this Contract and only after the ENGINEER shall have given a certificate for such payment. For final payment, when the work covered by this Contract has been completed, and Completion certificate has been issued to the Contractor, the CONTRACTOR shall prepare a final abstract showing the total amount of work done and its value under and according to the terms of this Contract. The CONTRACTOR shall attach copies of the ENGINEER's completion certificate with his final abstract. From the total value thus arrived, all previous payments will be deducted and all deductions made in accordance with the provisions of this Contract and the remainder shall be paid by the OWNER to the CONTRACTOR within three months of the date of submission of the CONTRACTOR's final bill except in case of disputed items.

**10.10 Deduction from / Withholding Contractor's Bills/Payment**

**10.10.1** All costs, damages or expenses, which the Owner/Project Manager may have paid, for which under the Contract the Contractor is liable, will be claimed by the Owner/Project Manager. All such claims shall be billed by the Owner/Project Manager to the Contractor regularly as and when they fall due. Such bills shall be supported by appropriate and certified vouchers or explanations, to enable the Contractor properly identify such claims. Such claims shall be paid by the Contractor within 15 (fifteen) Days of the receipt of the corresponding bills and if not paid by the Contractor within the said period, the Owner/Project Manager may deduct the amount, from any monies due or becoming due by him to the Contractor under the Contract or may be recovered by actions of Law or otherwise, if the Contractor fails to satisfy the Owner/Project Manager of such claims.

**10.10.2** Owner/Project Manager shall have the right to withhold from any payment due to Contractor, including the final payment, such amounts as Owner/Project Manager reasonably deems necessary or appropriate to protect it because of any one or more of the following reasons:

- a. Defects in any Work, which might affect Owner/Project Manager's ability to operate Relevant Package as contemplated herein, whether or not payment has been made thereof;
- b. The filing of any vendor / tradesman's lien or similar encumbrance in respect of the Work or the Relevant Package (or any portion thereof);
- c. A dispute as to the accuracy or completeness of any request for payment received by Owner/Project Manager within 90 Days of receipt thereof or payment made there under;
- d. Contractor's failure to deliver any Performance Securities to Owner/Project Manager

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- e. Any requirement in accordance with Applicable Laws to withhold any Taxes payable by Contractor in respect of the Goods/Work or any part thereof;
- f. Contractor's failure to make payments to its Sub-contractors or Workers for Work or supply of Goods or to any statutory & Regulatory authority including amounts withheld by Contractor because of disputes between Contractor and such Persons.
- g. Any legal cases, litigations pending against the Contractor or against the Owner/Project Manager but relating to the Works or Contractor's obligations under the Contract.
- h. Any breach of the Contract by the Contractor.

**10.10.3** In addition to the provisions of the clause No.10.10.1 which relates to the recovery by the Owner/Project Manager of any amounts that the Owner/Project Manager may have paid, for which the Contractor is liable under the Contract, the Owner/Project Manager shall also be entitled to recover all the dues in terms of the Contract including Liquidated Damages for delay, Liquidated Damages for the shortfall in the guaranteed performance parameters, etc., by way of deductions from the payments due to the Contractor or that may become due to the Contractor in future or from any securities / guarantees under the Contract and / or otherwise.

**10.10.4** Notwithstanding any dispute that Contractor may have, and regardless of the basis thereof or grounds thereof, Contractor agrees that it will, for so long as the Contract has not been terminated diligently proceed with the Works up to Final Performance Acceptance and final Take-over of Relevant Package, all in accordance with the terms of the Contract.

**10.10.5** Any payment due to Owner/Project Manager by the Contractor and remaining unpaid beyond the stipulated date shall be liable to interest payment at the rate of 1(one) percentage point above the short term Prime Lending Rate of State Bank of India from the date of due to Owner/Project Manager to the date of receipt of dues from Contractor by Owner/Project Manager.

**10.10.6** Idle time charges for any reason whatsoever shall not be borne by the OWNER.

**10.11 Punch List Items:**

Contractor shall perform all Work required or appropriate for all Punch List Items within a Schedule to be mutually determined by Contractor and Owner/Project Manager after submission of the Final Request for takeover. Such Schedule shall provide for completion of all Punch List Items as soon as practicable following determination of the completion schedule, but no later than the date set forth by Owner/Project Manager. Upon completion of the Punch List Items, Contractor may submit to Owner/Project Manager and the Owner's Representative a Request for Final Takeover and shall furnish with such a request a certificate that all Punch List Items have been completed. OWNER/PROJECT MANAGER shall examine and certify claim of Contractor of having satisfactorily attended the punch list items.

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## 10.12 Change Orders

A Change Order shall be issued by the Owner/Project Manager in accordance with this clause, when either Owner/Project Manager or Contractor proposes to make any change in the Scope, Services, the Contract Price, the Performance Guarantees and/or the Schedule.

### 10.12.1 Further Detailing not a Change Order

Contractor's performance of Services shall be subject to further detailing from time to time and Contractor shall receive no additional compensation for such detailing to the extent that such detailing does not constitute a Change Order.

Notwithstanding GCC, no change made necessary because of any default of the Contractor in the performance of its obligations under the Contract shall be deemed to be a Change, and such change shall not result in any adjustment of the Contract Price or the Time for Completion.

### 10.12.2 Right to Change Order

Change Orders may be initiated by the Owner/Project Manager/Owner's Representative at any time during the Contract Period, either by instruction or by a request (the "Change Order Notice") to the Contractor to submit a proposal. If the Owner/Project Manager/Owner's Representative requests the Contractor to submit a proposal and subsequently elects not to proceed with the change, the Contractor shall not be reimbursed for the Cost incurred for proposal.

The Contractor shall not make any alteration and/or modification of the Services unless and until the Owner/Project Manager/Owner's Representative instructs or approves a Change Order in Writing.

Change Orders may be requested by the Contractor (the "Change Order Request") (i) in case its performance of Services is affected by any Change in Laws or any act or omission of the Owner/Project Manager, Owner's Representative or Owner/Project Manager's Other contractors, or (ii) to propose any change which in the Contractor's opinion will reduce the cost of constructing, maintaining or operating the Relevant Package or otherwise be of benefit to the Owner/Project Manager.

### 10.12.3 Change Order Procedure

If the Owner/Project Manager/Owner's Representative issues a Change Order Notice, the Contractor shall submit a proposal addressing the following, within fifteen (15) Days or any other period as mutually agreed:

- a) Description of the proposed design and/or work to be performed, and a programme for its execution together with supporting details and calculations;
- b) The Contractor's proposal for any necessary modifications to the Schedule
- c) The Contractor's proposal for any adjustment to the Contract Price, Guaranteed Completion Dates, Performance Guarantees and/or modifications to the Contract.

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**10.12.4** If the Contractor issues a Change Order Request, the Contractor shall submit a proposal addressing the following:

- a) the reasons for the request with supporting details / documents;
- b) a description of the design and/or work affected or proposed to be performed, together with programme for execution and other supporting details / calculations;
- c) the Contractor's proposal for any necessary modifications to the Schedule;
- d) the Contractor's proposal for any adjustment to the Contract Price, Guaranteed Completion Dates, Performance Guarantees and/or modifications to the Contract.

**10.12.5** The Owner/Project Manager/Owner's Representative shall respond with approval, rejection or comments within a period to be mutually agreed after receipt of such proposals.

**10.12.6** If the Owner/Project Manager/Owner's Representative instructs or approves in Writing a Change Order, the parties shall proceed with adjustments to the Contract Price, Schedule of Payments, Performance Guarantees and/or Guaranteed Time for Completion.

**10.12.7** Contractor shall not suspend performance of this Contract during review and negotiation of any Change Order, except as may be directed by Owner/Project Manager or required by Applicable Law.

**10.12.8** Payment in respect of the approved Change Orders shall be released by the Owner/Project Manager to the Contractor on satisfactory completion of such Change Order and its certification by the Owner's Representative in the same manner as applicable to corresponding milestone payments under the Contract.

**10.13 WORK PARTLY ABANDONED**

10.13.1 If any time after commencement of the work, the OWNER shall for any reason whatsoever, not require the Partly work thereof as specified in the Contract to be carried out, the ENGINEER shall give notice in writing of the fact to the CONTRACTOR who shall have no claim to any payment of compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the full amount of the work not having been carried out nor shall he have any claim for compensation by reason of any change having been made in the original specifications, drawings, designs and instructions which shall involve any curtailment of the work as originally contemplated.

10.13.2 The CONTRACTOR shall be paid the charges on the cartage only of materials actually brought to the site by the CONTRACTOR and rendered surplus as a result of the abandonment or curtailment of the work or any portion thereof and taken back by the CONTRACTOR, provided however, that the ENGINEER shall have in all such cases, the right to purchase these materials at their purchase price or at current local rates whichever may be less.

**11. TERMINATION BY THE OWNER/PROJECT MANAGER**

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If the Contractor (being an individual or a firm) commit any 'Act of Insolvency', or shall be adjudged as insolvent, or shall make an assignment or composition for the greater part in number or amount of his creditors, or shall enter into a Deed of Assignment with his creditors, or (being an Incorporated Company) shall have an order made against him or pass an effective Resolution for winding up either compulsorily or subject to the supervision of the Court or voluntarily, or if the Official Assignee of the Contractor shall repudiate the Contract, or if the Official Assignee or the Liquidator in any such winding up shall be unable, within seven days after notice to him requiring him to do so, to show to the reasonable satisfaction of the OWNER/PROJECT MANAGER that he is able to carry out and fulfil the Contract and if required by the OWNER/PROJECT MANAGER to give security therefor, or if the Contractor shall sub-contract, assign or sublet the Contract without the consent in writing of the OWNER/PROJECT MANAGER first obtained, or if the Contractor shall charge or encumber this Contract for any payments due or which may become due to the Contractor there under, or if the ENGINEER shall certify in writing to the OWNER/PROJECT MANAGER that in his opinion the Contractor.

- i. Has abandoned the Contract, or
- ii. Has failed to commence the works, or has, without any lawful excuse under these conditions suspended the progress of the works for fourteen days after receiving from the OWNER/PROJECT MANAGER written notice to proceed, or
- iii. Has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or
- iv. Has failed to remove materials from the site or to pull down and replace works within seven days after receiving from the OWNER/PROJECT MANAGER written notice that the said materials or work were condemned and rejected by the OWNER/PROJECT MANAGER under these conditions, or
- v. Has neglected or failed persistently to observe and perform all or any of the acts, matters or things required by this Contract to be observed and performed by the Contractor for seven days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same, or
- vi. Has to the detriment of good workmanship or in defiance of the OWNER/PROJECT MANAGER's instructions to the contrary sublet any part of the Contract.

Then and in any of the said causes the OWNER/PROJECT MANAGER with the written consent of the ENGINEER may, notwithstanding any previous waiver, after giving seven days notice in writing to the Contractor, terminate the Contract. Notwithstanding any such termination, the Contractor shall continue to be responsible for all liabilities that have accrued under this Contract prior to the date of such termination. And further, the OWNER/PROJECT MANAGER with the consent of the ENGINEER by his agents or servants may enter upon and take possession of the works and all plant, tools, scaffolding, sheds, machinery, steam and other power, utensil and materials, lying upon premises or the adjoining lands or roads, and use the same as his own

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property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other Contractor's or other persons or person to complete the works and the Contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other Contractor or other person or persons employed for completing and finishing or using the materials and plant for the works.

When the work shall be completed, or as soon thereafter as convenient, the ENGINEER shall give a notice in writing to the Contractor to remove his surplus materials and plant and should the Contractor fail to do so within a period of 14 days after receipt thereof by him, the OWNER/PROJECT MANAGER may sell the same by public auction and shall give credit to the Contractor for the amount so realised. The OWNER/PROJECT MANAGER shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to the Contractor by the OWNER/PROJECT MANAGER, for the value of the said plant and materials so taken possession of by the OWNER/PROJECT MANAGER, and the expense or loss which the OWNER/PROJECT MANAGER shall have been put to in getting the works to be so completed, and the amount, if any owing to the Contractor and the amount which shall be so certified shall, thereupon, be paid by the OWNER/PROJECT MANAGER to the Contractor or by the Contractor to the OWNER/PROJECT MANAGER as the case may be, and the certificate of the OWNER/PROJECT MANAGER shall be final and conclusive between the parties.

## **12. INDEMNIFICATION**

### **12.1 General Indemnity**

**12.1.1** Contractor shall fully indemnify, save harmless and defend OWNER/PROJECT MANAGER, OWNER/PROJECT MANAGER's shareholders, the OWNER's Representative, and the directors, agents and employees of the OWNER/PROJECT MANAGER (the "OWNER Indemnified Parties") from and against any and all claims, including reasonable legal costs, (collectively the "Damages"), including by way of claims from third parties in respect of death or bodily injury or in respect to loss or damage to any property (other than the Works, Plant or part thereof not yet taken over) which arises out of or in consequence of the Services whilst the Contractor has responsibility for the care of the works to the extent resulting from Contractor's or any Sub-Contractor's or their agents or employees intentional act, negligence, or strict liability or omission in the performance of the Services hereunder; provided that the foregoing obligation shall not apply to the extent the OWNER Indemnified Parties are contributory negligent or strictly liable or to the extent such damages are caused by the intentional acts or omissions of the OWNER Indemnified Parties.

**12.1.2** OWNER/PROJECT MANAGER shall fully indemnify, save harmless and defend Contractor and its shareholders and the directors, agents and employees of the Contractor (the "Contractor Indemnified Parties"), from and against any and all claims, including reasonable legal costs, (collectively the "Damages") by third parties in respect of death or bodily injury or in respect to loss or damage to any property which arises out of or in consequence of the execution of the Project to the extent caused by OWNER/PROJECT MANAGER's or OWNER/PROJECT MANAGER's other contractor's strict liability, intentional act or omissions or negligence; provided that the

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foregoing obligation shall not apply to the extent the Contractor Indemnified Parties are contributory negligent or strictly liable or to the extent such damages are caused by the intentional acts or omissions of the Contractor Indemnified Parties.

## **12.2 Specific Indemnification**

**12.2.1** Contractor shall fully indemnify, save harmless OWNER Indemnified Parties from and against any claim, demand, liability, action, proceedings, cost or expense in favour of any third party with respect to

- a) Failure of Contractor, any Sub-Contractor or any of their respective Sub-Contractors to comply with Applicable Laws and Applicable Permits, Prudent Utility Practices and Good Engineering Practices.
- b) Failure of Contractor to make payments of taxes relating to Contractor's, any Sub-Contractor's income or other taxes required to be paid by Contractor pursuant to this Contract irrespective of whether they are reimbursable or to be compensated under the terms of this Contract.
- c) Any Hazardous Materials Contractor, any Sub-contractor, or any of their respective Sub-Contractors has at any time brought on and caused the release thereof on or from the Site or for which any of them is responsible by law or in the Contract.
- d) Material breach by the Contractor of any provision of this Contract.

**12.2.2** OWNER/PROJECT MANAGER shall fully indemnify, save harmless and Contractor Indemnified Parties from and against Damages in favour of any third party with respect to:

- a) Failure of OWNER/PROJECT MANAGER or any of its Other Contractors to comply with Applicable Laws and Applicable Permits.
- b) Any Hazardous Materials of OWNER/PROJECT MANAGER or any of its Other Contractors has brought on and caused the release thereof from the Project Site.

## **12.3 Intellectual Property Indemnification**

**12.3.1** In performing the Services, Contractor shall not incorporate into the Relevant Package, or use in connection with the Relevant Package or the performance of the work, any materials, methods, processes, systems or service that involve the use of any confidential information, intellectual property or proprietary rights that Contractor does not have the right to use or

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incorporate or which may result in claims or suits against Owner/Project Manager, Contractor or any Sub-contractor arising out of claims of infringement of any third party, domestic or foreign patent rights, copyrights, other proprietary rights, or intellectual property rights, licenses or agreements, or applications for any thereof, or rights of use of confidential information.

**12.3.2** Contractor shall provide Owner/Project Manager with royalty free license for the sole purpose to operate and maintain the Relevant Package.

**12.3.3** Contractor shall fully indemnify and save harmless and defend the Owner Indemnified Parties from and against any and all Damages that the Owner Indemnified Parties may suffer, incur or pay by reason of any claims or suits arising out of claims of infringement of any patent rights, copyrights or other intellectual property, proprietary or confidentiality rights with respect to equipment, designs, techniques, processes and information designed or used by Contractor or any sub-Contractor in performing the Work or supply of Goods hereunder or under the Sub-Contracts in any way incorporated in or related to the Project other than any such equipment, designs, techniques, processes and information provided by the Owner Indemnified Parties.

**12.3.4** If, in any suit or claim relating to the foregoing, a temporary restraining order or preliminary injunction is granted, Contractor shall make every effort to secure the suspension of the injunction or restraining order. If, in any such suit or claim or any part, combination or process thereof, is finally held to constitute an infringement and its use is permanently enjoined, Contractor shall promptly make every reasonable effort to secure for Owner/Project Manager a license, at no Cost to Owner/Project Manager, authorising continued use of the infringing Goods or Work. If Contractor is unable to secure such license within a reasonable time so as to not affect the project completion schedule, Contractor shall, at its own expense and without impairing performance requirements, either replace the affected Goods or Work, or part, combination or process thereof with non-infringing components or parts or modify the same so that they become non-infringing.

**12.3.5** Final payment to the Contractor by the Owner/Project Manager will not be made while any such suit or claim remains unsettled.

**12.4 Notice and Legal Defence**

**12.4.1** Promptly after receipt by a party of any claim or Notice of the commencement of any action, administrative or legal proceeding, or investigation as to which the indemnities provided may apply, such Party shall notify the other Party in Writing of such fact provided that the failure of a Party to give any such Notice promptly shall not excuse the indemnifying party from its indemnification obligations hereunder except to the extent any such failure actually prejudices the indemnifying Party in the defence of such matters.

**12.4.2** The indemnifying Party shall assume on behalf of the indemnified Party and conduct with due diligence and in good faith the defence thereof with counsel reasonably satisfactory to the indemnified Party; provided that the indemnified Party shall have the right to be represented

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therein by advisory counsel of its own selection and at its own expense; and provided, further, that if the defendants in any such action include both the indemnifying Party and the indemnified Party and the indemnified Party shall have reasonably concluded that there may be legal defences available to it which are different from or additional to, or inconsistent with, those available to the indemnifying Party, the indemnified Party shall have the right to select separate counsel to participate in the defence of such action on its own behalf at the indemnifying Party's expense.

**12.4.3** The indemnified Party shall, at the request of the indemnifying Party, provide all reasonably available assistance in the defence or settlement of any such claim, action, proceeding or investigation, and all reasonable costs and expenses incurred by the indemnified Party in connection with the defence or settlement of any such claim, action, proceeding or investigation shall be reimbursed by the indemnifying Party promptly upon demand thereof. The indemnified Party shall not settle or compromise any claim, action or proceeding without the prior Written consent of the indemnifying Party such consent not to be unreasonably withheld.

**12.5 Failure to Defend Action**

If any claim, action, proceeding or investigation arises as to which the indemnities provided may apply, and the indemnifying Party fails to assume the defence of such claim, action, proceeding or investigation, then the indemnified Party may at the indemnifying Party's expense contest or settle such claim.

**12.6 Survival: Expiration of Indemnity**

The provision of this Clause 12 shall survive final take over or the termination of this Contract; provided that neither Party shall have any indemnity obligations pursuant to this Clause 12 for any claim arising out of or resulting from events or circumstances occurring after the termination of this Contract or after the expiration of the Defect Liability Period; and provided further that neither Party shall have any indemnity obligation pursuant to this Clause 12 unless notice of any such claim for indemnity by either Party is received by the indemnifying Party prior to the date that is three (3) years after the expiration of the Defect Liability Period.

**13.FORCE MAJEURE**

**13.1. Definition of Force Majeure**

“In this Clause, “Force Majeure” shall mean an event or circumstance beyond the reasonable control of the Owner/Project Manager or the Contactor which could not have been foreseen, prevented or mitigated by such Party using its reasonable diligence and which makes it impossible for such Party to perform the whole or in part its obligations under the Contract, including but not limited to:

- a) Act of God.

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- b) An act of war, (whether declared or undeclared) hostilities invasion, armed conflict or an act of foreign enemies, blockade, embargo, revolution, military action, or sabotage.
- c) Contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive, or other hazardous properties.
- d) Riot, civil commotion, terrorism or disorder, unless solely restricted to employees of the Contractor or of his Sub-contractors.
- e) Natural or regional industrial disputes or targeted disputes which are part of national or regional campaign and which is not reasonably within the powers of a Party to prevent, or which is not specific to the Party or any of his Contractors or Subcontractors.
- f) Operation of the forces of nature such as earthquake, hurricane, lightning, tidal wave, tsunami, typhoon or volcanic activity.

### 13.2 Excused Performance

If either Party is rendered wholly or partially unable to perform its obligations under this Contract because of a Force Majeure Event, that party will be excused from whatever performance is affected by the Force Majeure event to the extent so affected provided that:

- a) The affected Party gives the other Party Written Notice of the occurrence of the Force Majeure Event as soon as practicable after the occurrence of the Force Majeure Event and also gives the other Party Written Notice describing in reasonable detail the particulars of such occurrence, including an estimation of its expected duration and probable impact on the performance of such Party's obligations hereunder, and thereafter continues to furnish thereto timely regular reports with respect to continuation of the Force Majeure Event;
- b) The suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure;
- c) No liability of either Party which arose before the occurrence of the Force Majeure Event causing the suspension of performance shall be excused as a result of the occurrence;
- d) The affected Party shall exercise all reasonable efforts to mitigate or limit Damages to the other Party;
- e) The affected Party shall use its best efforts to continue to perform its obligations hereunder and to correct or cure the event or condition excusing performance;
- f) When the affected Party is able to resume performance of its obligations under this Contract, that Party shall give the other Party Written Notice to that effect and shall promptly resume performance hereunder.

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**13.3 Limitations**

Notwithstanding anything to the contrary contained herein:

- a) any act, event, or occurrence listed above or asserted as a Force Majeure Event that results materially from the negligence or intentional acts of the affected party (including in the case of Contractor or any Sub-contractor thereof) shall not constitute a Force Majeure Event; and
- b) The affected Party shall not be relieved from obligations under this Contract to the extent that the negligence or wilful misconduct of the affected Party (or in the case of Contractor or any Sub-Contractor thereof) contributes to or aggravates the Force Majeure Event.

**13.4 Effect of Force Majeure Event**

Neither the Owner/Project Manager nor the Contractor shall be considered in default or in Contractual breach to the extent that performance of obligations is prevented by a Force Majeure Event, which arises after the Effective Date. Except as otherwise provided in a Change Order, an extension of time shall be granted to Contractor only to the extent Contractor proves to Owner/Project Manager:

- a) The performance of the Work or supply of Goods is actually and necessarily delayed by an event of Force Majeure; and
- b) The effect of such event of Force Majeure could not have been prevented or avoided or removed despite exercise of reasonable due diligence whether before, after or during the event of Force Majeure.

**13.5 Payment to Contractor**

If, in consequence of Force Majeure, the Site or any part thereof shall suffer loss or damage, the Contractor shall be entitled to claim and receive payment for the cost of Work or supply of Goods executed in accordance with the Contract, prior to the event of Force Majeure.

**13.6 Optional Termination, Payment and Release**

Irrespective of any extension of time, if a Force Majeure Event occurs and its effect continues for a continuous period of [180 days], the Owner/Project Manager at its discretion may give to Contractor a Notice of termination, which shall take effect 30 (thirty) Days after the giving of the Notice. If, at the end of the 30 (thirty) Day period, the effect of the Force Majeure Event continues, the Contract shall terminate. If the Contract is so terminated, the Owner/Project Manager shall determine the work done and pay to the Contractor all amounts due and payable for such work.

**14.EXTRA ITEMS**

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- 14.1** Extra items if any shall be paid on the basis of vouchers of cost of materials and labour produced by the Contractor. Vouchers produced for materials, labour, machinery etc. shall be as per the prevailing market rates. The Contractor shall be paid 20 percent of the cost of materials, labour and operation of plant and machinery etc. required to execute the item towards his profit and overhead charges. Cost of materials will not be added for calculation of overheads/profits if the same is supplied by the OWNER/PROJECT MANAGER. For such extra work, the Contractor shall maintain time sheets of personnel engaged and machinery used for execution of same and get them certified by the OWNER/PROJECT MANAGER. Only such labour and plant cost based on above records, which in the opinion of the OWNER/PROJECT MANAGER is justified, shall be taken into account to determine the extra item rate.
- 14.2** Items not covered by the Schedule of Quantities but are similar in nature to the items already covered shall be paid for, the rates being worked out on the basis of rates quoted for similar items.

**15. DRAWINGS AND SCHEDULE OF QUANTITIES**

- 15.1** One set of the drawings and specifications and schedule of quantities shall be furnished by the OWNER/PROJECT MANAGER to the Contractor, and OWNER/PROJECT MANAGER shall furnish, within such time as he may consider reasonable, one copy of any additional drawing/s which in his opinion may be necessary for the execution of any part of the work. Such copies shall be kept on the works and the OWNER/PROJECT MANAGER and their representatives shall at all reasonable times have access to the same, and they shall be returned to the OWNER/PROJECT MANAGER by the Contractor before the issue of the certificate for the balance of his account under the Contract. This contract and the signed drawings and specifications and schedule of quantities shall remain in the custody, of the OWNER/PROJECT MANAGER, and shall be produced by him at his office as and when required by the OWNER/PROJECT MANAGER or by the Contractor.
- 15.2** OWNER shall also supply construction drawings and details progressively during the contract period, to cover all the works envisaged in the scope of the contract. Construction drawings would be issued at the commencement of the work and subsequently to ensure that progress is maintained at the required pace, to meet the agreed work schedule of completion provided design data are available. If the Contractor apprehends any delay in construction for want of drawings and details, he shall, immediately advice the OWNER/PROJECT MANAGER in writing accordingly. In case the work is retarded or even stopped temporarily for lack of details and construction drawings to proceed with, the Contractor would be given extension of time to the extent his work has been held up for want of drawings. The OWNER/PROJECT MANAGER's decision in regard to the extension of time allowed on this account shall be final and binding.
- 15.3** Only figured dimensions on drawings will be followed and drawings to large scale shall generally take precedence over those to a smaller scale. Detailed drawings and notes appended thereon shall be deemed to form part of the specifications and to supersede the specification in case of discrepancies. However, all documents shall be considered mutually explanatory.

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**15.4** CONTRACTOR shall prepare and submit detailed fabrication drawings based on the drawings and/or instructions furnished by OWNER for structural steel and works which require further detailing for successful execution of works. OWNER's ENGINEER shall review and comment such detailed drawings submitted by CONTRACTOR. CONTRACTOR will have to re-submit the commented drawings till the OWNER approves the drawings as fit for fabrication / construction. CONTRACTOR must note that it is his responsibility to timely submit and obtain OWNER'S approval on the fabrication / detailed drawings without affecting the project progress and schedule. The CONTRACTOR must submit and adhere to fabrication / detailed drawing schedule in accordance with the project requirements and to the OWNER's satisfaction as would be decided during the kick-off meeting with him.

#### **16. MEASUREMENT OF WORKS**

**16.1** The OWNER/PROJECT MANAGER/ OWNER'S representative may from time to time intimate to the Contractor that they require the works to be measured and the Contractor shall attend or send a qualified agent to assist the OWNER/PROJECT MANAGER and OWNER'S representative in taking such measurements and calculations and to furnish all particulars or to give all assistance required by either of them.

**16.2** Should the Contractor not attend or neglect or omit to send such agents then the measurements taken by the OWNER/PROJECT MANAGER /OWNER'S representative or approved by them shall be taken to be the correct measurements of the work. Such measurements shall be taken in accordance with the Mode of Measurements mentioned in the specification.

**16.3** Any claim which the Contractor may have to make in respect of such measurement shall be made by him in writing to the OWNER/PROJECT MANAGER within seven days of the date of these measurements, failing which the measurements shall be deemed to have been accepted by the Contractor.

**16.4** Where mode of measurement is not specified, the measurements will be taken at site as per I.S. Code of Practice for Measurements. The Contractor shall give all assistance for taking measurements like steel measuring tapes, scaffolds, ladder and including surveyors with surveying instruments for checking and confirming levels.

#### **17. NIGHT WORK**

**17.1** The Contractor is normally expected to work during daytime only and is required to complete the work in all respects as stipulated elsewhere. However, night work may be stipulated by the

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OWNER/PROJECT MANAGER or permitted in exigencies with prior approval of the OWNER/PROJECT MANAGER.

- 17.2** Sufficient lights shall be provided by the CONTRACTOR to safeguard the workmen and the public and to afford adequate facilities for properly placing and inspecting the material when the night work is in progress.

**18. ARBITRATION**

- 18.1** In case any dispute or difference shall arise between the OWNER/PROJECT MANAGER or the ENGINEER on his behalf and the CONTRACTOR arising out of or in relation to or concerning this Contract or the construction, meaning, operation or effect hereof or of any clause herein contained or as to the rights, duties or liabilities of the parties hereto respectively or of the ENGINEER under or by virtue of these presents or otherwise or in connection with the subject matter of these presents or arising out of or in relation thereto (except as to matters left to the sole discretion of the ENGINEER) the same shall be referred to the arbitration of a single arbitrator in case the parties can agree upon one, otherwise, to two arbitrators, one to be appointed by each party and an umpire to be appointed by the two arbitrators before entering upon the references and in either case in accordance with and subject to the provisions of the Indian Arbitration and Reconciliation Act 1996 or any statutory modification or re-enactment thereof for the time being in force. All arbitration proceedings shall be conducted in English language only and the decision of the arbitration tribunal constituted in accordance with the above shall be final and binding upon the parties. Each party to the dispute shall bear its own costs, unless otherwise specified by the arbitration tribunal in its order. The seat and venue of all arbitration proceedings under this Contract shall be Mumbai.

- 18.2** Work under the Contract shall, continue during the arbitration proceedings and no payments due or payable by the OWNER/PROJECT MANAGER shall be withheld on account of such proceedings.

**19. SCHEDULE OF QUANTITIES - NO CLAIM BECAUSE ACTUAL QUANTITIES DIFFER FROM PRELIMINARY STATEMENT**

- 19.1** The quantities of the various kinds of work to be done and materials to be furnished under this Contract which have been estimated and are set forth in the proposal or the Agreement or the Schedule of Quantities and Rates are the best available, but may not be accurate in any or all particulars and are only for the purpose of comparing on a uniform basis the bids offered for the work under this Contract

- 19.2** The CONTRACTOR agrees that neither the OWNER/PROJECT MANAGER nor the ENGINEER nor any of the employees or agents thereof shall be held responsible if any of the said estimated quantities should be found to be not even approximately correct in the construction of the work and that he will not at any time dispute or complain of such statement nor assert that there was

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any misunderstanding in regard to the character, size and type of work to be done or the kind or amount of the materials to be furnished or work to be done. Further, the CONTRACTOR shall make no claim for anticipated profits, for loss of profit or for damage because of a difference between the quantities of the various kinds of work to be done or materials actually delivered and the estimated quantities set forth by the OWNER/PROJECT MANAGER or the ENGINEER

- 19.3** The rates/prices quoted by the CONTRACTOR in the schedule of rates/prices shall be firm irrespective of any variation in the quantities of individual items of work and/or in the total Contract Price unless otherwise specified in Special Conditions of Contract.

**20. CONTRACTOR INFORMED, AS TO THE CONDITIONS**

- 20.1** The CONTRACTOR shall inspect, examine and obtain all information and satisfy himself regarding all matters and things such as right of way, surface and sub-surface water conditions to be encountered, the character of equipment and facilities needed for the prosecution of work; the location and suitability of all construction materials, the quantities of various sections of the work, and local labour conditions, relating to the execution and maintenance of the works to be carried out under the Contract or any hindrances or interference's to or with construction and maintenance of the works from any cause whatsoever including any other operation of works, which may or will be carried out on or adjacent to the site of the works under the Contract and shall make allowance for all such contingencies in the Contract Price and will not raise any claims or objections against the OWNER/PROJECT MANAGER in any of such matters as mentioned above.
- 20.2** The acceptance of the order or making of a Contract will be construed as evidence that such an examination was made and later claims for labour, equipment or materials required for difficulties encountered will not be allowed.
- 20.3** Any record of subsurface condition, water records and other observations which may have been made by the ENGINEER/OWNER/PROJECT MANAGER have been made with reasonable care and accuracy. Such records may be made available to the CONTRACTOR for his information, if available, but there is no expressed or implied guarantee, as to the accuracy of the records nor any interpretation of them. The CONTRACTOR shall recognise this and form his own opinion of the character of the materials to be encountered or excavated, from an inspection of the ground and put his own interpretation on records.
- 20.4** The prices quoted by the CONTRACTOR shall be based on his own knowledge and judgement of the conditions and hazards involved and not upon any representation of the OWNER/PROJECT MANAGER or ENGINEER.

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**21. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY**

- 21.1** The CONTRACTOR shall provide everything necessary for the proper execution of the Works according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the CONTRACTOR finds any discrepancy therein shall immediately and in writing refer the same to the ENGINEER whose decision shall be final and binding on the parties.
- 21.2** The CONTRACTOR shall supply, fix and maintain at his cost, during the execution of any works all the necessary cantering, scaffolding, staging, planking, timbering, strutting, shoring, pumping, fencing, hoarding, watching and lighting by night as well as by day, etc required not only for the proper execution and protection of the Works, but also for the protection of the public and the safety of any adjacent roads, streets, cellars, vaults, walls, houses, buildings and all other erections, matters or things, and the CONTRACTOR shall take out and remove any or all such cantering, scaffolding, staging, planking, timbering, strutting, shoring etc. as occasion shall require or when ordered to do so and shall fully reinstate and make good all matters and things disturbed during the execution of the works to the satisfaction of the ENGINEER. The CONTRACTOR shall be paid no additional amount for the above and for any access roads to be made to reach the construction site.
- 21.3** All materials shall be new and of the best respective kinds described in the schedule of quantities and/or Technical Specifications and in accordance with the Engineer's Instructions and the CONTRACTOR shall upon the request of the ENGINEER, furnish him with all invoices, accounts, receipts, certificates and other vouchers, to prove that the materials comply therewith. The CONTRACTOR shall at his own cost arrange for and/or carry out any test of materials which the ENGINEER may require. The contractor shall establish and operate a full-fledged cement and concrete testing laboratory at site and depute a full time qualified QA/QC engineer for the duration of the contract at no extra cost to the Owner/Project Manager. Such full-fledged cement and concrete testing laboratory at the site shall be as per provision of IS: 456 and CONTRACTOR shall also depute an independent qualified QA/QC engineer full-time at the site for the duration of the contract.
- 21.4** It shall be the responsibility of the CONTRACTOR to unload and store in a safe and acceptable manner all construction materials as directed by the Owner/Project Manager.
- 21.5** The CONTRACTOR is required to provide and maintain all tools, and equipment and instruments necessary to perform his work. He shall provide all fuels, lubricants and compressed air for the operation and maintenance of his construction tools.
- 21.6** The CONTRACTOR is to arrange for all his requirements of such materials including but not limited to oxygen, Acetylene, pipes, ropes, welding rods etc required for performing the Works.

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- 21.7** Samples of all materials to be used, whether cement, steel, bricks, rubble stone, aggregate, sand, timber, tiles, granite, finishing & building interior etc. shall be submitted by the CONTRACTOR and must be got approved by the Owner/Project Manager before they are used. Approved samples shall be kept with the Owner/Project Manager and all supplies shall strictly conform to the approved samples. Materials not strictly conforming to the samples are liable to be rejected.
- 21.8** The CONTRACTOR shall not sell, assign, mortgage, hypothecate or remove equipment or materials which have been installed or which may be necessary for the completion of the Contract without the written consent of the Owner/Project Manager.
- 21.9** CONTRACTOR shall provide and maintain at the site necessary number and type of machinery and equipment including survey instruments, TOTAL Station, Auto level etc. in good working condition for proper setting out and timely completion of the various works covered under Relevant Package. All arrangements for transporting the equipment to and from the site shall be done by the CONTRACTOR at his own expense. Contractor has to provide all the survey equipments including all technicians, helpers etc., for checking other works also if so desired by Owner with no additional cost of the Owner. No claim shall be entertained for mobilising additional equipment and/or personnel to complete the work within the stipulated time.
- 21.10** CONTRACTOR shall provide all fuels and lubricants required for the operation and maintenance of construction machinery and equipment as well as his transport vehicles.
- 21.11** CONTRACTOR shall at his cost arrange for all his requirements of such materials as, but not limited to, oxygen, acetylene, welding electrodes, ropes, form ties, turn-buckles, clamps, wiping rags and sand papers etc. which are required to satisfactorily perform his work.
- 21.12** It shall be ensured by the CONTRACTOR that work shall proceed uninterrupted even in the event of power failures with the help of DG Sets and Diesel compressors. As such, adequate number of diesel operated machinery (such as boring rigs, concrete mixers, vibrators, welding sets, etc.) shall be provided by the CONTRACTOR as an alternative arrangement in case electrically operated machinery are proposed to be brought to site.
- 21.13** The CONTRACTOR will be required to provide at his own cost all facilities for his office, warehouse, tool room, change room or any other building/structure required to the Works.
- 21.14** CONTRACTOR shall establish his own office / shed at specified place inside/near the project site for his worker/staff. The CONTRACTOR's office/shed shall be porta-cabin type. Only the shed for storing Cement shall be in brick masonry. In addition the office/shed shall have proper ventilation lighting and sanitary facilities. CONTRACTOR shall plan their site facilities and obtain clearance from the OWNER before construction of the Office/shed.
- 21.15** All royalties shall be paid by the CONTRACTOR as also all tolls, local and other taxes, etc. at no extra cost to OWNER. The rates quoted for excavation shall include Collector's permissions for

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Excavation permits, Royalty payments, disposal in MCGM (Debris Cell management) approved yard etc.

- 21.16** All materials supplied by the CONTRACTOR shall be of the best quality and shall conform to the Technical Specification. Approval in writing shall be obtained from OWNER before any alternative or equivalent material is proposed to be used by the CONTRACTOR.
- 21.17** The CONTRACTOR shall get tested all materials supplied by him in a OWNER approved laboratory, as directed by ENGINEER or as specified in the corresponding code of practice, at no extra cost to the OWNER. This is in addition to furnishing the Manufacturer's Test Certificate where available.
- 21.18** CONTRACTOR shall obtain all necessary permits and licenses before commencement of work at no extra cost to OWNER.
- 21.19** The CONTRACTOR shall have PF coverage, for all workmen in his permanent employee as well as those temporarily hired by him for the said project. He shall also have ESIC cover for all workmen, permanent as well as temporary if required by law. The cost for both the above viz. PF as well as ESIC shall be deemed to have been covered in the rate quoted by contractor. The OWNER shall not pay any extra charges over and above the rates quoted for these statutory payments.

**22. TO DEFINE TERMS AND EXPLAIN PLANS**

- 22.1** The various parts of the Contract are intended to be complementary to each other, but should any discrepancy appear, or any misunderstanding arise as to the import of anything contained therein, the explanation of the OWNER/PROJECT MANAGER shall be final and binding. The correction of any errors or omissions of the drawings and specifications may be made by the OWNER/PROJECT MANAGER, when such correction is necessary to bring out clearly the intention, which is indicated by a reasonable interpretation of the drawings and specifications as a whole.
- 22.2** The OWNER/PROJECT MANAGER may from time to time prepare for his own use estimates of quantities or bills of materials required for the work. Copies of such estimate or bills of materials which may be given to the CONTRACTOR for his convenience, or any lists, weights, or quantities of materials or structures which may appear on the drawings shall not be considered as finally correct, sufficiently complete, or accurately covering any portion or all the work to be done under this Contract. Such bills or estimates may be carefully assembled and prepared but their accuracy is not guaranteed. They may or may not be accurate as to any particular detail and are given only as the best information available at the time of issue of the information. It is mutually understood that any such lists or estimates are furnished to the CONTRACTOR for his convenience only and not as lists or estimates of work to be done, many necessary items of work being omitted.

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**23. ENGINEER TO DIRECT WORK AND ORDER ALTERATIONS, MODIFICATIONS, DELETIONS**

- 23.1** The OWNER/PROJECT MANAGER shall have the right but not obligation to direct the manner in which all work under this Contract shall be conducted in so far as may be necessary to secure the safe and proper progress and the specified quality of the work, and all work shall be done and all material shall be furnished to the satisfaction and approval of the OWNER/PROJECT MANAGER.
- 23.2** Additional drawings and explanations to exhibit or illustrate details may be provided by the OWNER/PROJECT MANAGER and shall be so provided whenever necessary and shall be binding upon the CONTRACTOR. The written decision of the OWNER/PROJECT MANAGER as to the true interpretation and meaning of the drawings and specifications and of such additional drawings and explanations shall be binding upon the CONTRACTOR.
- 23.3** If at any time the CONTRACTOR's methods, materials, or equipment appear to the OWNER/PROJECT MANAGER to be unsafe, inefficient or inadequate for securing the safety of the workmen or the public, the quality of work or the rate of progress required, he may order the CONTRACTOR to increase their safety, efficiency and adequacy, and the CONTRACTOR shall comply with such orders. If at any time the CONTRACTOR's working force and equipment are, in the opinion of the ENGINEER, inadequate for securing the necessary progress, as herein stipulated, the CONTRACTOR shall, if so directed, increase the working force and equipment to such an extent as to give reasonable assurance of compliance with the schedule of completion. The failure of the OWNER/PROJECT MANAGER to make such demands shall not relieve the CONTRACTOR of his obligations to secure the quality, the safe conducting of the work, and the rate of progress required by the Contract, and the CONTRACTOR alone shall be and remain liable and responsible for the safety, efficiency, and adequacy of his methods, materials, working force, equipment and timely completion of job irrespective of whether or not he makes any change as a result of any order or orders received from the OWNER/PROJECT MANAGER.
- 23.4** The OWNER/PROJECT MANAGER shall have the power to make any alteration in, omissions from additions to the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work and the CONTRACTOR shall be bound to carry out the work in accordance with any instructions that may be given to him in writing by the OWNER/PROJECT MANAGER and such alterations, omissions, additions or substitutions shall not invalidate the Contract. Any altered, additional or substituted work which the CONTRACTOR may be directed to do in the manner above specified as part of the work, shall be carried out by the CONTRACTOR on the same conditions in all respects on which he agreed to do the main work and at the same rates as are specified in the Contract for the main work, unless such alterations are not identical with items of work and form extra items.
- 23.5** The time for completion of the work shall be extended in the time proportion that the altered, additional or substituted work bears to the original contract and the decision of the OWNER/PROJECT MANAGER shall be conclusive and binding on the CONTRACTOR.

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**24. CONTRACTOR'S SUPERVISION**

**24.1** The CONTRACTOR shall, during the whole time the work is in progress, employ a qualified engineer to be in-charge of the works with adequate experience in handling of jobs of this nature and with the prior approval of the OWNER / PROJECT MANAGER. Such engineer shall be constantly in attendance at the site during working hours. During Contractor's representative's absence during working hours, when it may be necessary to give directions and orders by the ENGINEER / OWNER/PROJECT MANAGER, such orders shall be received and obeyed by the CONTRACTOR'S engineer in-charge who may have charge of the particular part of the work in reference to which orders are given.

If requested to do so, the ENGINEER /OWNER / PROJECT MANAGER shall confirm such orders in writing. Any directions, instructions or notices given by the ENGINEER/OWNER / PROJECT MANAGER to Contractor's Engineer-in-charge shall be deemed to have been given to the CONTRACTOR. Such engineer in-charge of CONTRACTOR shall have all necessary powers to engage labour or purchase materials and proceed with the work as required for speedy execution in accordance with the Contract.

Apart from the above, a separate and independent planning and monitoring cell of adequate and suitable back-up in the form of computers and project management software (Microsoft Project or Primavera Only) shall also be available at site full time. This cell shall prepare overall and detailed construction programmes and submit weekly / fortnightly / monthly progress and hold-up reports

**24.2** None of the CONTRACTOR's Superintendents, engineers, supervisors or labour should be withdrawn from the work without due notice being given to the OWNER/PROJECT MANAGER/ENGINEER; further no such withdrawals shall be made if in the opinion of the OWNER/PROJECT MANAGER/ENGINEER such withdrawals will jeopardise the required pace of progress/successful completion of the work.

**24.3** The CONTRACTOR shall employ in or about execution of the work only such persons as are careful, skilled and experienced in their respective trades, and the OWNER/PROJECT MANAGER shall be at liberty to object to and require the CONTRACTOR to remove any person employed by the CONTRACTOR in or about execution of works who in the opinion of the ENGINEER misconducts himself or is incompetent or negligent in the proper performance of his duties and all such persons shall not again be employed upon the works without the prior permission of the OWNER/PROJECT MANAGER.

**24.4** Neither the CONTRACTOR, the OWNER/PROJECT MANAGER nor the ENGINEER shall hire or employ any employee of the other party except by mutual consent.

**25.SETTING OUT WORKS**

**25.1** The CONTRACTOR shall set out the works and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time, any error shall appear during the progress of any

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part of the work, the CONTRACTOR shall at his own expenses rectify such error, if called upon, to the satisfaction of the OWNER/PROJECT MANAGER.

- 25.2** The CONTRACTOR shall establish and maintain base lines and bench marks adjacent of the various sections of work. All such marks and stakes must be carefully preserved by the CONTRACTOR, and in case of their destruction by him or any of his employees, they will be replaced at the CONTRACTOR's expense.
- 25.3** The CONTRACTOR shall be responsible for the accuracy of all dimensions within the various sections of the work according to the figures of dimensions on the drawings.

**26. CONSTRUCTION SUPERVISION AND WORKMANSHIP**

- 26.1** The OWNER/PROJECT MANAGER will engage his own supervisory staff at the site of works as may be deemed fit. The CONTRACTOR shall afford the supervisors every facility and assistance for examining the works and materials for checking and measuring the works and materials. The supervisors shall have no power to revoke, alter, enlarge or relax any requirement of the CONTRACTOR, but may sanction any day work, additions, alterations, deviations or omissions, or any extra work whatever as may be authorised by the OWNER/PROJECT MANAGER.
- 26.2** The Supervisors engaged by OWNER/PROJECTMANAGER will act ENGINEER's representatives and shall have power to give notice to the CONTRACTOR or to his Foreman of non-approval of any work or materials, and such work shall be suspended or the use of such material shall be discontinued, until the decision of the ENGINEER is obtained.
- 26.3** The work shall be conducted under the general direction of the ENGINEER and is subject to inspection by his supervisors to ensure strict compliance with the terms of the Contract. No failure of the ENGINEER or his supervisors during the progress of the work to discover or to reject materials, or work not in accordance with the requirement of this Contract shall be deemed as acceptance thereof or a waiver of defects therein and no payment by the ENGINEER on partial or entire occupancy of the premises shall be construed to be an acceptance of the work or materials which are not strictly in accordance with the requirements of this Contract. No changes whatsoever to any provision of the specifications shall be made without written authorisation of the OWNER/PROJECT MANAGER.
- 26.4** The CONTRACTOR shall execute the whole and every part of the work in the most substantial and workmanlike manner as regards material and in all other respects.
- 26.5** If it shall appear to the ENGINEER/OWNER/PROJECT MANAGER that any work has been executed with unsound, imperfect or unskilled workmanship, or that any materials or articles provided by him for the execution of the work are unsound, or of a quality inferior to that contracted for, or otherwise not in accordance with the Contract, the Contractor shall on demand in writing from the ENGINEER/OWNER/PROJECT MANAGER, notwithstanding that the

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same may have been inadvertently passed, certified and paid for, forthwith rectify or remove and reconstruct such work in whole or in part as the case may require or as the case may be, remove such materials or articles at his own proper charge and cost. In the event of his failing to do so within seven days of receipt of the ENGINEER'S written notice thereof, or any other period mentioned in such notice, the ENGINEER may rectify or remove and re-execute the work or remove and replace with other materials and articles complained of, as the case may be, at the risk and expense of the CONTRACTOR in all respects.

Also in the event the CONTRACTOR fails to carry out the rectification within the period stipulated above, the CONTRACTOR shall be liable to pay compensation at the rate of quarter (1/4) percent of the total Contract Value, for every week or part thereof, beyond the period stipulated above, that the rectification work remain incomplete.

**26.6** The provisional acceptance of sections of the work for the purpose of preparing partial estimates and the payment of money for such partial estimates shall not operate as a waiver of any portion of this Contract and shall not be construed so as to prevent the ENGINEER from requiring replacement of defective work that may become apparent after the said provisional acceptance and shall not be construed in any way as the basis for a claim of extra compensation for any cause whatsoever by the CONTRACTOR.

**27.UNFIXED MATERIALS WHEN TAKEN INTO ACCOUNT TO BE THE PROPERTY OF OWNER/PROJECT MANAGER**

**27.1** Wherein any certificate, of which the CONTRACTOR has received payment, the ENGINEER has included the value of any unfixed materials intended for and/or placed on or adjacent to the works, such materials shall become the property of the OWNER/PROJECT MANAGER (for any loss or damage to materials the CONTRACTOR shall be responsible) and they shall not be removed from the site, except for the works, without the written authority of the OWNER/PROJECT MANAGER.

**28.INTOXICANTS**

**28.1** The CONTRACTOR shall not permit or suffer the introduction or use of intoxicating liquor upon the works embraced in this Contract, or upon any of the ground occupied or controlled by him.

**29. WORK IN MONSOON AND DEWATERING**

**29.1** The construction and erection work may entail working in monsoon also. The CONTRACTOR must maintain a minimum labour force as may be required for the job and plan and execute the construction and erection according to the prescribed schedule. No extra rate will be considered for such work in monsoon.

**29.2** During monsoon and other period it shall be the responsibility of the CONTRACTOR to keep the construction site free from accumulating of water, at his own cost.

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**29.3** During inclement weather, rains, CONTRACTOR shall suspend concreting for such time as the ENGINEER may direct and shall protect from damage all works already in progress or completed just then. All such temporary protective measures shall be at CONTRACTOR's cost and any damage to works shall be made good by the CONTRACTOR at his own expense. Upon resumption with ENGINEER's consent/notice, CONTRACTOR shall make good any deterioration or defect in or loss of the Works or Materials, which has occurred during the suspension.

**30. HOLD HARMLESS CLAUSE**

**30.1** The CONTRACTOR shall be fully responsible for the due compliance by him and his sub-contractors with all statutory requirements and with all applicable labour laws including Contract Labour Abolition and Regulation Act, Workmen's Compensation Act, P.F./E.S.I., Labour welfare fund, Act as may be applicable to the Contractor, the sub-contractors and their employees. The Contractor shall fully indemnify and save harmless the OWNER/PROJECT MANAGER from and against all claims, demands, expenses, losses, liabilities, charges, actions, suits and proceedings whatsoever including claims under aforesaid Acts and laws which may be brought or made against the OWNER/PROJECT MANAGER, its Officers or servants by reason or in consequence of any matter or thing done or omitted to be done by the CONTRACTOR and/ or the sub-contractors and all costs, charges and expenses which may become payable by the OWNER/PROJECT MANAGER in respect thereof.

**31. DEMOBILISATION**

Upon completion of work, the CONTRACTOR shall promptly demobilise from the site and leave the place in a manner as directed by the OWNER/ENGINEER, including cleaning of the area. CONTRACTOR shall start demobilisation only after the successful completion of the contract. No equipment, plant material or personnel shall be de-mobilised from the site unless with the express consent of the OWNER's Project Manager. The OWNER reserves the right to disallow in de-mobilisation if works under this scope of this contract are not completed to his satisfaction.

**32. NOT USED**

**33. SUSTAINABILITY**

The Contractor shall abide to the Owner / Project Manager's Corporate Environment policy, Corporate Sustainability Policy and Tata Power Sustainable Procurement Policy (enclosed). The Contractor should strive towards Conservation of Energy, Water, Resources and optimize transportation of Men & Materials to minimize environmental impact and reduce carbon footprint.

The Contractor should carry out the assessment of materials used for construction, operation & maintenance, consumables and accordingly phase out those materials which are environmentally hazardous.

The Contractor organization should be ISO 14001 and SA 8000 and OHSAS-18001 certified. If not, Contractor shall certify that the handling, use and disposal of all materials & products shall be consistent with sound environment management.

TPCODM/SA/O/W 040	<b>THE TATA POWER COMPANY LIMITED</b> <b>GENERAL CONDITIONS OF CONTRACT</b>	
	Rate Contract for General Civil Works at Various Circles of Wesco Utility	

The Contractor commits that: that no child labour, No forced labour, Non discrimination on the basis of caste, colour, religion, gender, disability and any other factor unrelated to the requirements of the job.

The Contractor commits to equal pay for equal value of work, especially for women. The Contractor should carry out assessment of their Sub-contractors on their Sustainability Readiness so that they comply with the above mentioned standards.

**34. Total Compliance to TCOC, SHE and Safety Terms & Conditions**

The Contractor shall abide and comply with Owner / Project Manager’s Safety, Health & Environment policies, Safety Terms & Conditions, Sustainability and TCOC manuals / documents as enclosed, in totality.

**35.CHANGES IN CONSTITUTION**

Where the CONTRACTOR is a partnership firm, the previous approval in writing of the ENGINEER and the OWNER / PROJECT MANAGER shall be obtained before any change is made in the constitution of the firm and where the Contractor is an incorporated entity, the previous approval in writing of the ENGINEER / PROJECT MANAGER shuld be obtained before any change in Control of the Contractor. Where the CONTRACTOR is an individual or a Hindu undivided family business concern, such approval as aforesaid shall likewise be obtained before the CONTRACTOR enters into any partnership agreement where-under the partnership firm would have the right to carry out the work hereby undertaken by the CONTRACTOR.

**36.MISCELLANEOUS**

**36.1 Non-Waiver**

Neither Party shall be deemed to have waived any right under this Contract unless such Party shall have delivered to the other Party a written waiver signed by such waiving Party. No failure or successive failure by either Party to enforce any covenant or agreement, and no waiver or successive waivers by either party of any condition of this Contract, shall operate as a discharge of such covenant, agreement or condition, or render the same invalid, or impair such Party's right to enforce the same in the event of any subsequent breach thereof by the other Party.

**36.2 Severability**

If any of the terms, covenants or conditions hereof or the application of any such term, covenant or condition shall be held invalid or unenforceable as to either Party or as to any circumstance by any court or arbitrator having jurisdiction, the remainder of such terms, covenants or conditions shall not be affected thereby, shall remain in full force and effect and shall continue to be valid and enforceable in any other jurisdiction. In such event, the Parties shall negotiate in good faith to substitute a term, covenant or condition in this Contract to replace the one held invalid or unenforceable by a mutually agreed amendment to this Contract with a view toward achieving a valid and enforceable legal and economic effect as similar as is then reasonably possible to that originally provided for in this Contract.

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	Rate Contract for General Civil Works at Various Circles of Wesco Utility	

**36.3 Survival of Provisions**

In order that the Parties may fully exercise their rights and perform their obligations hereunder arising from the performance of the Work, such provisions of this Contract that are required to insure such exercise or performance shall survive the termination of this Contract for any cause whatsoever.

**36.4 Entire Agreement**

This Contract constitutes the entire agreement and contains all of the understandings and agreements of whatsoever kind and nature existing between the Parties, and supersedes, to the extent permitted by Indian law, all prior written or oral agreements, commitments, representations, communications and understandings between the Parties.

**36.5 Amendment**

No amendment, waiver or consent relating to this Contract shall be effective unless it is in writing and signed by the Parties.

**36.6 Successors and Assigns**

All of the terms and provisions of this Contract shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns. This Contract is for the sole benefit of the Parties, and to the extent provided herein, the Indemnities, and is not for the benefit of any other Person.

**36.7 Counterparts**

This Contract may be executed in one or more counterparts, each of which shall be deemed to be an original and all such counterparts shall together constitute one and the same contract.

**36.8 No Benefit to Third Parties**

For the avoidance of doubt, this Contract is not intended to confer any legally enforceable rights on any Person other than the Parties, their successors in title and their permitted assignees.

**36.9 Certification**

The Contractor should be ISO 14001 and SA 8000 and OHSAS-18001 certified. In the event Contractor does not have the certification, then the Contractor should certify that the handling, use and disposal of the product shall be consistent with sound environment management.

**36.10 Liability Limitation:**

CONTRACTOR's total liability to the OWNER/PROJECT MANAGER for all matters under or arising out of this Contract, other than the Excluded Matters, is limited to 100% of the Total Contract

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	Rate Contract for General Civil Works at Various Circles of Wesco Utility	

value in aggregate. For the purposes of this clause 36.10, “Excluded Matters” shall mean liabilities arising on the Contractor on account of fraud, willful default, reckless misconduct by the Contractor or any regulatory penalties / third party claims that are made on the Owner on account of a breach of this Contract by the Contractor..

**37. NOVATION**

At the Owner’s sole discretion, the Contractor shall have no objection and will fully extend co-operation for Novation of this Contract to any Tata Group Companies including Tata Power associates and subsidiaries; if the situation so warrants.

**38. DECLARATION BY CONTRACTOR**

All articles, Clauses, Conditions, Manuals, instructions cross referred in this GCC are fully read, understood by the Contractor in their entirety for fruitful implementation.



**ARIBA SUPPLIER MANUAL**

CONFIDENTIAL



**SUPPLIER MANUAL ANSWERING  
TO  
E-BIDDING**

	<b>Version 1.2</b>
Company Confidential	DEC - 2020

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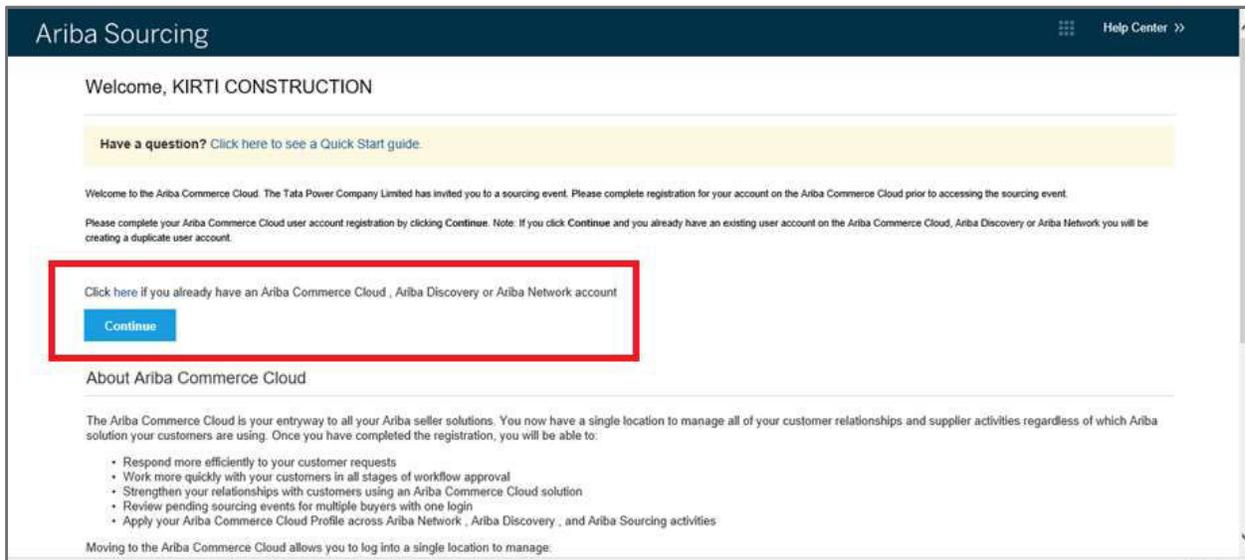
## 1- Accessing Ariba Sourcing

**Step 1:** You will get an invitation to your email from Ariba System. Keep this email, it contains your login Information and a direct link to Ariba.

**Step 2:** Click "Click Here" to access the Ariba Web Site.



**Step 3:** Supplier has to click on "Continue"



**Step 4:** The registration process only takes a few moments, with a simple one-page registration Define your password and secret question. Click "OK"

Company Name: KIRTI CONSTRUCTION

Country: India [IND]

Address: Yashodeep E3- 08  
Sector 22 Koperkharne Navi Mumbai  
400709

City: mumbai

State: maharashtra

Postal Code: 400709

Product and Service Categories: Enter Product and Service Categories [Add](#) -or- Browse

Ship-to or Service Locations: Enter Ship-to or Service Location [Add](#) -or- Browse

Tax ID: Optional Enter your Company Tax ID number.

DUNS Number: Optional Enter the nine-digit number issued by Dun & Bradstreet.

**Supplier has to fill the form**

**Step 5:** If it's the first time you are invited to use UPM Ariba, you'll need to accept the "Participant Terms". Select "I accept the terms of this agreement". Click "Submit".

The screenshot shows a registration form with the following elements:

- A password field with a masked input (\*\*\*\*\*).
- A "Secret Question" dropdown menu with the selected option "In what city was your mother born?". A note states: "The answer to your secret question must be atleast 5 characters."
- Two additional masked input fields (\*\*\*\*\*).
- A "Language" dropdown menu with the selected option "English". A note states: "The language used when Ariba sends you configurable notifications. This is different than your web b..."
- A paragraph of text explaining the company profile and data consent.
- A checkbox labeled "I have read and agree to the Terms of Use and the Ariba Privacy Statement", which is checked and highlighted with a red box.
- "Submit" and "Cancel" buttons at the bottom right.

## 2 Vendor Screen - Submitting Your Answers / Proposal

2.1.1 If vendor goes through mail invitation then directly Screen 3.1.1 will appear, but if If you have used Ariba before and have already accessed an event for the buyer-specific account with your current log in ID, click the **Login** button to continue. Log in with your Ariba username and password in order to participate in the event OR you have to follow the following steps.

Step 1 - Log on [supplier.ariba.com](https://supplier.ariba.com)

Step 2 - Put your USER ID and Password in following screen

The screenshot shows the "Supplier Login" page for SAP Ariba Proposals. The page features:

- The SAP Ariba logo and "Proposals Powered by Ariba Sourcing" text at the top left.
- A "Help Center" link at the top right.
- A large blue background with a laptop displaying a dashboard on the right side.
- Input fields for "User Name" and "Password".
- A blue "Login" button.
- A link for "Forgot Username or Password".
- A link for "Need help? See Quick Start".

Step 3 - Go to "Ariba Proposals & Questionnaire".

The screenshot shows the Ariba Sourcing dashboard. On the left, a navigation menu includes 'Ariba Discovery', 'Ariba Proposals And Questionnaire', 'Ariba Contracts', and 'Ariba Network'. A blue callout bubble points to the 'Ariba Proposals And Questionnaire' option with the text: "Goto 'Ariba Proposals & Questionnaire' after logging in at supplier.ariba.com". The main content area features the Tata Power logo and an 'Events' table. A second blue callout bubble points to the 'Events' table with the text: "Events (Tender enquiries) in which Bidder has participated shall be visible. Click and enter into any specific event".

Title	ID	End Time	Event Type
Status: Open (2)			
Maintenance of HT and LT Networks for Tata Power Distribution at Odisha (TPC-ENGG-ENQ-016-20-21)	Doc2416130949	6/4/2020 4:55 PM	RFP
Tender Documents-Meter Reading Cum Spot billing and Bill Distribution(TPC-ENGG-ENQ-015-20-21)	Doc2420255101	6/4/2020 3:00 PM	RFP

The screenshot shows the 'Event Details' page for Doc2420255101 - Tender Documents-Meter Reading Cum Spot bill... The page includes a 'Checklist' on the left with steps: 1. Review Event Details, 2. Review and Accept Prerequisites, 3. Submit Response. A central yellow banner contains prerequisite information. Below this are buttons for 'Download Content', 'Review Prerequisites', 'Decline to Respond', and 'Print Event Information'. A blue callout bubble points to the 'Review Prerequisites' button with the text: "Click on 'Review Prerequisites'". The 'Tender Documents' section shows a list of documents, including '1.1 Introduction' with a 'Less' button. A 'Next' button is visible at the bottom right of the document list.

Tata Power - Ariba Spend Manag... X +

s1.ariba.com/Sourcing/Main/aw7a...

Checklist

1. Review Event Details
2. Review and Accept Prerequisites
3. Submit Response

Prerequisites must be completed prior to participation in the event.

In consideration of the opportunity to participate in on-line events ('On-Line Events') held and conducted by the company sponsoring this On-Line Event ('Sponsor') on the web site (this 'Site') hosted by Ariba, Inc. ('Site Owner'), your company ('Participant' or 'You') agrees to the following terms and conditions ('Bidder Agreement');

1. **Bids.** If you are invited to participate in the On-Line Event, Sponsor reserves the right to amend, modify or withdraw this On-Line Event. Sponsor reserves the right to accept or reject all or part of your proposal. Submission of a bid does not create a contract or any expectation by Participant of a future business relationship. Rather, by submitting a bid, you are making a firm offer which Sponsor may accept to form a contract, subject to section 2 below. Sponsor is not liable for any costs incurred by Participant in the preparation, presentation, or any other aspect of Participant's bid.
2. **Price Quotes.** Except to the extent Sponsor allows a non-binding bid, all Bids which Participant submits through the On-Line Events are legally valid quotations without qualification, except for data entry errors.
3. **Procedures and Rules.** Participant further agrees to be bound by the procedures and rules established by the Site and Sponsor.
4. **Confidentiality.** Participant shall keep all user names and passwords, the On-Line Event content, other confidential materials provided by the Site and/or Sponsor, and all bids provided by You or another participating organization in confidence and shall not disclose the foregoing to any third party.
5. **Bids through Site only.** Participant agrees to submit bids only through the on-line bidding mechanism supplied by the Site and not to submit bids via any other mechanism including, but not limited to, post, courier, fax, E-mail, or orally unless specifically requested by Sponsor.
6. **Ethical Conduct.** All parties will prohibit unethical behavior and are expected to notify the Site Owner by contacting the appropriate project team if they witness practices that are counter-productive to the fair operation of the On-Line Event. If Participant experiences any difficulties during a live On-Line Event, Participant must notify Site Owner immediately.
7. **Survival.** The terms and conditions of this Bidder Agreement shall survive completion of the On-Line Event.

\*\*\*\*  
BA v1.1 19Aug05

I accept the terms of this agreement.

I do not accept the terms of this agreement.

Accept the Terms of Agreement and Submit

Tata Power - Ariba Spend Manag... X +

s1.ariba.com/Sourcing/Main/aw7a...

Console Doc2420255101 - Tender Documents-Meter Reading Cum Spot bill... 8 days 03:33:47

Event Messages  
Response History  
Response Team

Checklist

1. Review Event Details
2. Review and Accept Prerequisites
3. Submit Response

Event Contents

- All Content
- 1 Tender Documents
- 2 Techno Commercial Bid
- 3 Price Bid

All Content

Name	1
2.1	Please attach the Techno-Commercial bid
2.2	Please attach your techno commercial offer (Extra File)
3	Price Bid
3.1	Bidder to specify the prices either in terms of percentage ( % ) or Value where the options are available for both percentage ( % ) , please Specify Zero ( 0 ) in the amount field and vice-versa.
3.2	Bidders to download editable copy of Price bid format (Which...), fill in the same with, and re-attach the same after filling in prices as their Price Bid. No Alterations/changes shall be made by the bidders in this... References

(\*) indicates a required field

Submit Entire Response Update Totals Page Excel Import

Devidra Sharma (desharma@gmail.com) last visited 26 May 2020 10:55:18 PM. Horizons Cybersoft Ltd AN01523824134  
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Technical Bid to be attached in Tab 2.1 and 2.2. Attach file link is towards extreme right, and is shown in next slide

Price Bid to be attached in Tab 3.2. Attach file link is towards extreme right, and is shown in next slide

These are "Attach File" links for Tab 2.1 and 2.2 where Technical bid is to be attached. Pls attach files in BOTH these tabs otherwise it will show error on submission.

Terms of percentage ( % ) or Value where the options are available for both. In case price is specified in 0 in the amount field and vice-versa.

This is "Attach File" link for Tab 3.2 (Price Bid).

Click On "Submit Entire Response" AFTER Attaching technical and Price bids as above.

Note: In case of multiple files, all files can be kept in one folder and folder can be converted to zip file for attaching

### 3 Communicating with Tata Power Buyer during e- bidding

**Step 1:** Click "Compose Message".

**Step 2:** Compose Your Message and click "Send".

back to The Tata Power Company Limited-TEST Dashboard

Desktop File Sync Notifications

Compose New Message

From: shingare.manufacturers (Ravi Shingare)

To: Project Team

Subject: Dec681345837 -sourcing project 001

Attachments: attach a file

Send Cancel

Dear Sir,

Can we submit the price ??

Regards

ABC

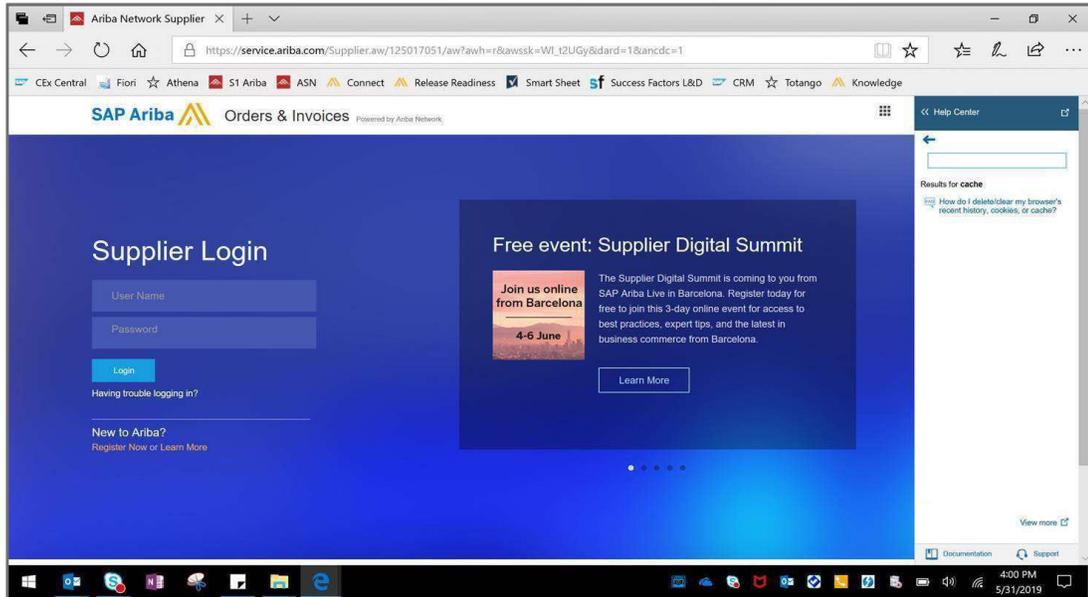
## **ARIBA TRAINING VIDEOS**

[Participating in a RFI or RFP on Ariba Network - https://www.youtube.com/watch?v=9\\_XXUaVyI7o](https://www.youtube.com/watch?v=9_XXUaVyI7o)

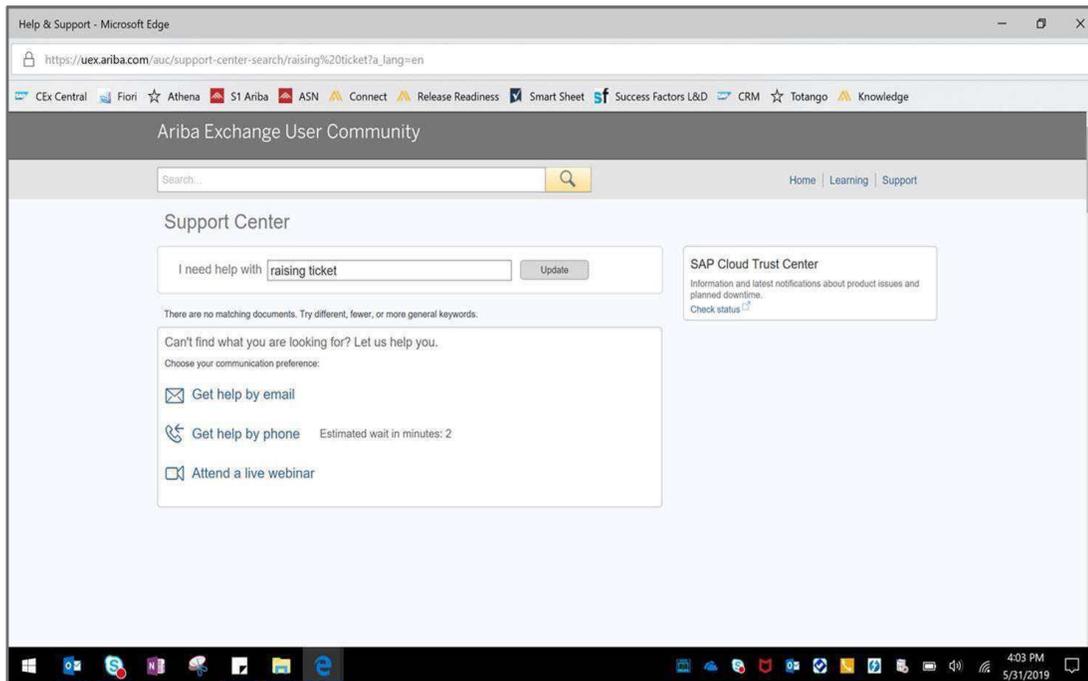
## **Support from Ariba - Supplier can raise the Ticket for “Support”**

Here are the steps that Suppliers can follow for raising a ticket or requesting a call back from Support team. They can do so without logging in – pls follow the brief instructions given below.

1. Go to login page>Choose “Support” on the bottom right corner



2. Add query and press “Start” – After that, following screen will pop up where you can choose either Get Help by Email or Get Help by Phone.





Click **Add Ship-to or Service Locations** to select one or more sales territories from a list. You can add, refine, or remove ship-to or service locations any time after the registration process.

Additional Information: - D-U-N-S is a registered trademark of Dun & Bradstreet or its subsidiaries in the United States and other countries.

 **What is the difference between the Email and Username fields in my profile?**

**Answer:** - The Email field represents the email address where you wish to receive email notifications. The Username field is the identifier that you use to access your account. The Username field must be in email format, but you do not have to use a valid email address.

**Note:** Leave the **This is my username** box checked if you want your email address to be the same as your username.

 **How do I participate in my buyer's event using an email invitation?**

**Answer:** - Use the **Click here** link in the email notification to access the sourcing event.

While buyers might customize the email content you receive, all email invitations contain a link to access the event.

Depending on your previous experience with Ariba solutions, do one of the following to access the event after you click the link:

- If you are new user, click **Continue** on the welcome page. You continue to register an Ariba account to link with your buyer and participate in the event.
- If you have used Ariba before and have already accessed an event for the buyer-specific account with your current log in ID, click the **Login** button to continue. Log in with your Ariba username and password in order to participate in the event.
- If you already have an existing Ariba Network, Ariba Discovery, or Ariba Sourcing supplier account, but you have not accessed any events for the inviting buyer's site, use the **Click here if you already have an Ariba Commerce Cloud, Ariba Discovery or Ariba Network account** link. After clicking the link, log in with your existing account to move your information to your buyer's site.

Additional Information:- Registering an Ariba account provides you with a consolidated view of all your customer relationships. With this one profile, you can view business opportunities, participate in sourcing events, participate in contract negotiations, and manage orders, catalogs, and invoices.

 **Why doesn't the link in the email invitation to participate in a sourcing event work?**

**Answer:**-If you cannot click the link, or the link does not open the log in page, highlight and copy the Uniform Resource Locator (URL), and then paste the URL into your web browser.

 **Can my company have multiple accounts?**

**Answer:**-Your Company can have multiple Ariba accounts, depending on your business needs. For example, if your company has several locations around the world, you might want a separate account for each region.

Most companies choose to have one account with multiple customer relationships, which provides a centralized location to maintain their company profile information and all of their customer relationships.

#### **How do I complete registration if my username already exists?**

**Answer:** - This message means that you already have an Ariba Network, Ariba Discovery, or Ariba Sourcing supplier account registered under username you entered. You can either register a new account by creating a new username, or access one of the following sites to request a password reset for the registered username:

- [Ariba Network](#) (This login page is used for all Ariba Network, Ariba Sourcing, or Ariba Contracts suppliers).
- [Ariba Discovery login page](#)

To reset your password, click the **Having trouble logging in?** Link on the Login page.

#### **Nothing happens when I click Forgot Username and enter my email address**

**Issue:** - Nothing happens when I click the **Forgot Username** link and enter my email address.

**Cause:** - After you submit your request to retrieve your username, the Ariba Network sends an email notification with usernames that match the email address you submitted.

Some possible reasons why you may not receive this username retrieval email notification:

- The email address on your account does not match the email address you entered when submitting the request.
- Your buyer-specific account was deactivated before you could move it to the Ariba Commerce Cloud. Generally, that means you probably have not participated in an event with that buyer for a while.

#### **Solution:** -

- To ensure you receive this email notification:
- Make sure you type the email address configured within your account.

If your buyer-specific account has been deactivated, contact your buyer to determine how to proceed.

#### **Where is my password reset email?**

**Answer:** - After you submit your request for a password reset, Ariba sends instructions to the email address associated with your account. If you didn't receive a password reset email, check the following scenarios to troubleshoot.

---

The username you entered is in the wrong format, or it isn't associated with the email address you are checking.

- Keep in mind, your username is in the format of a full email address, but it can be associated with any email address you entered previously.
- Your username is also case-sensitive.
- To confirm that you are using the correct username and format, return to the Ariba login page, and click the **Having trouble logging in?** link (**Forgot Username** if you're working in Ariba Discovery).
  - Choose **I forgot my username**, and click **Continue**.
  - Enter the email address associated with your account, and click **Submit**.

- You will receive an email that lists the exact format of the username associated with the email you entered.

---

You entered the correct username, but you still didn't receive the password reset email notification.

- This can occur if the configured email address is different from the account you are checking.
- You might have multiple accounts for your company, so make sure you are attempting to access the correct account.

Your email configuration or company's security settings might also prevent you from receiving the password reset email. To find out, check your junk mail folder or email filter settings to verify that automated emails from Ariba are not blocked from your email account.

 **Why do I get this message on the SAP Ariba Login page: "The username and password pair you entered was not found"?**

**Answer: -** You entered an incorrect **Username** or **Password**. You might receive this message if you entered a previous **Username** or **Password**. Remember that your **Username** has the format of an email address, and both the **Username** and **Password** are case sensitive.

Click the **Having trouble logging in?** Link on the Login page if you don't remember your log in information.