

OIL INDIA LIMITED
(A GOVT. OF INDIA ENTERPRISE)
P.O.DULIAJAN-786602, ASSAM
E-TENDER NOTICE

OIL INDIA LIMITED (OIL) invites Bids under Composite bid System from established Civil Engineering firms / contractors through its E-Procurement portal "<https://etender.srm.oilindia.in/irj/portal>" for the following works.

IFB No.	SHORT DESCRIPTION OF SERVICE	BID SECURITY	COST OF BID DOCUMENT
CDC9457P19	Construction of New Office Building in Civil Engineering Department at Duliajan including internal electrification and supply of all materials except Cement.	₹ 1,17,500/-	NIL
Bid Closing / Opening Date & Time for the above work : 15-11-2018 at 11.00/14.00 Hrs.			
Bidder shall require User ID and Password for online submission of Bid.			
Bidders without having E-tender Login ID and Password should complete their online registration at least seven (7) days prior to the scheduled bid closing date and time of the tender. For online registration, Bidder may visit the OIL's E-tender site https://etender.srm.oilindia.in/irj/portal .			
Necessary Login ID & Password will be issued by OIL only after submitting the complete online registration by the Bidder. In the event of late registration/incomplete registration by Bidder, OIL INDIA LIMITED shall not be responsible for late allotment of User ID & Password and request for bid closing date extension on that plea shall not be entertained by Company.			
No physical Bid documents will be issued. The details of IFB can be viewed using "Guest Login" provided in the E-Procurement portal and also in OIL's web site www.oil-india.com . The link to OIL's E-Procurement portal has also been provided through OIL's web site www.oil-india.com .			
All corrigenda, addenda, amendments, time extension, clarifications etc. to the tender will be hosted on the OIL's website and in the e-tender portal only and no separate notification shall be issued in the press. Prospective bidders are requested to regularly visit the website and e-portal to keep them updated.			

Date: 15.10.2018

GM Contracts (Civil)
For CGM-Contracts
For, RESIDENT CHIEF EXECUTIVE

OIL INDIA LIMITED
(A Govt. of India Enterprise)
Contracts Department, Duliajan

OIL INDIA LIMITED, a premier Public Sector Enterprise of Govt. of India engaged in drilling and exploration activities for hydrocarbon invites ON-LINE BIDS from experienced and established firms / contractors meeting the requisite criteria for the following mentioned work under **SINGLE STAGE Composite Bid System** through its e-Procurement site:

DESCRIPTION OF WORK/ SERVICE : **Construction of New Office Building in Civil Engineering Department at Duliajan including internal electrification and supply of all materials except Cement.**

TENDER VALUE: ₹ 2,34,45,290.31

LOCATION OF WORK : Civil Engineering Department, OIL.

CONTRACT PERIOD : **78 Weeks.**

BID CLOSING/ OPENING DATE & TIME: **15.11.2018 (11:00 HRS/14:00 HRS)**

BID SECURITY DEPOSIT: ₹ 1,17,500.00 /-(Rupees One lakh Seventeen Thousand and Five Hundred only).

a) Bid Security deposited vide Bank Guarantee/LC No. _____ dated _____ of _____

(Original hard copy of (a) should reach the office of CGM-CONTRACTS before Bid opening date and time, otherwise Bid will be rejected. A scanned copy of this document should also be uploaded along with the Un-priced bid documents.)

b) Bidders to confirm that in the event of the award of Contract he/she/they will submit Performance Security Deposit @ 2.5% of the total contract price within two weeks of issue of LOI/LOA and this will not earn any interest. Immediately after deposit of Performance security, successful bidder shall have to sign the formal contract Agreement.

2.0 SEALED ENVELOPES containing the Bid Security Deposit (EMD) shall be marked with the above Tender Number and description of work and addressed to

CGM-CONTRACTS
CONTRACTS DEPARTMENT
OIL INDIA LIMITED
Duliajan – 786602
Assam.

2.1 The bidders shall pay the requisite Bid security against the individual IFBs through the online payment gateway. Alternatively, the bidders may deposit the requisite BID SECURITY in the form of Letter of Credit/Bank Guarantee {BG should be submitted in the prescribed format enclosed with this tender (Annexure-III)} from a Nationalized / Scheduled Bank in favour of M/s Oil India Limited and payable at DULIAJAN. **DD/Cheques/ Cashier Cheque etc. will not be accepted.** This Bid Security shall be refunded to all unsuccessful bidders, but is liable to be forfeited in full or part, at Company's discretion, as per Clause No. 6 below. **Bids without Bid Security in the manner specified above will be summarily rejected.** Bid should be submitted on-line through OIL's e-Tendering Portal up to 11:00 hrs (IST) (Server Time) on the date as mentioned and will be opened on the same day at 14:00 hrs (IST) at Office of the CGM-Contracts in presence of authorized representative of the bidder. **If the bid security is submitted in the form of BG/LC, the same should be dropped in the tender box placed at the office of the CGM-Contracts on or before 1:30 p.m. of the schedule date of opening of tender.**

Note: The bidders are requested to advise the Bank Guarantee issuing bank to comply with the following and ensure to submit, the receipt of the copy of SFMS message as sent by the issuing bank branch, along with the original Bank Guarantee in OIL's tender issuing office:

The Bank Guarantee issued by the Bank shall be routed through SFMS platform as per following details:

- i. "MT 760 / MT 760 COV for issuance of Bank Guarantee.
- ii. "MT 760 / MT 767 COV for amendment of Bank Guarantee.

The above message/intimation shall be sent through SFMS (indicating the Contract Number) by the BG issuing bank branch to Axis Bank, Duliajan Branch, IFS Code: UTIB0001129, Branch address: AXIS Bank Ltd., Duliajan Branch, Daily Bazar, Jyotinagar, Duliajan, District Dibrugarh, PIN: 786602.

Bank Guarantee issued by a Scheduled Bank in India at the request of some other Non-Scheduled Bank of India shall not be acceptable.

Exemption from submission of bid security:

- a. Central Govt. Department & Public Sector Undertaking Companies are exempted from submission of bid security.

2.2 THE PHYSICAL BID SECURITY IS TO BE SUBMITTED ALONGWITH A COVERING LETTER MENTIONING THE e-TENDER NO AND THE BIDDER'S NAME AND ADDRESS IN A DULY SEALED ENVELOPE ADDRESSED TO CGM-CONTRACTS, OIL INDIA LIMITED, CONTRACTS DEPARTMENT, DULIAJAN – 786602

2.3 If the bidders deposit the requisite Bid security in the form of Bank Guarantee, then the Bank Guarantee should be valid for 30 days beyond the required bid validity period.

3.0 However, if the above mentioned closing / opening day of the tender happens to be non-working day due to Bandh / Strike or any other reason, the bids will be received and opened on the following working day at the same time except on Saturdays.

4.0 The rate shall be quoted in percentage (At par to +10%) of the internal estimate as specified in the "Price Bidding Format" attached just below the "Tendering text". Bidder should note that no pricing information is furnished in the "c-Folder" (Technical Bid) otherwise the bid will be rejected.

4.1 All other techno-commercial documents other than price details to be submitted with un-priced bid as per tender requirement placed in the 'un-priced' bid folder.

4.2 To participate in OIL's E-procurement tender, bidders must have a legally Valid Digital Signature of Class 3 [**Organizational Type**] with Organizations Name along with **Encryption Certificate** as per Indian IT Act from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India (<http://www.cca.gov.in>). Digital Signature Certificates having "**Organization Name**" field other than **Bidder's Name (i.e. Firm's Name)** are not acceptable.

4.3 The authenticity of above Digital Signature shall be verified through authorized CA after bid opening. If the **Digital Signature Certificate (DSC)** used for signing is not of "**Class -3**" & Organizational type with Organization's name, the bid will be rejected.

4.4 Bidder is responsible for ensuring the validity of Digital Signature Certificate (DSC) and its proper usage by their employee.

4.5 The bid including all uploaded documents shall be **digitally signed** by duly authorized representative of the bidding company.

4.6 Bidders without having E-tender Login ID and Password should complete their online registration at least seven (7) days prior to the scheduled bid closing date and time of the tender. For online registration, Bidder may visit the OIL's E-tender site <https://etender.srm.oilindia.in/irj/portal>.

4.7 Necessary Login ID & Password will be issued by OIL only after submitting the complete online registration by the Bidder. In the event of late registration/incomplete registration by Bidder, OIL INDIA

LIMITED shall not be responsible for late allotment of User ID & Password and request for bid closing date extension on that plea shall not be entertained by Company.

5.0 The Company reserves the right to reject any or all the tenders or accept any tender without assigning any reason.

6.0 (a) No Bidder can withdraw his bid within the validity or extended validity of the bid. Withdrawal of any bid within bid validity period will lead to forfeiture of his/her/their Bid Security in full and debarment from participation in future tenders, at the sole discretion of the Company and the period of debarment will be decided as per OIL's banning policy dated 6th Jan 2017 available at OIL's website.

(b) Once a withdrawal letter is received from any bidder, the offer will be treated as withdrawn and no further claim / correspondence will be entertained in this regard.

7.0

- a) The Bid must be valid for 90 (Ninety) days from the date of opening of the tender.
- b) In case of extension of Bid Opening Date, Bid validity must be extended suitably by the bidder, as and when advised by OIL.
- c) The amount of Bid Security shall be as specified in the NIT.
- d) In case the Bidder submits Bid security in the form of Bank Guarantee (BG), the BG must be valid for minimum 120 days (One Hundred Twenty) from the date of bid opening.
- e) In case of extension of Bid Opening Date, Bid Security validity must be extended suitably by the bidder, as and when advised by OIL.
- f) The bidders must upload the Integrity Pact, digitally signed by the authorized signatory (who is authorized to sign the bid) along with the Technical Bid.

8.0 Conditional bids are liable to be rejected at the discretion of the Company.

9.0 The work may be split up amongst more than one contractor at the sole discretion of the Company.

10.0 Before submission of bids, the bidder is advised to inspect the work site with permission from GM - Civil or his representative, to assess the nature and extent of work and the conditions under which it will be carried out. He may also seek such clarification from this office as are deemed necessary.

11.0 The bidder should offer their overall rate only as a percentage of Company's internally estimated cost within the limit of "At Par" to "+10%" on the Company's internal estimated contract cost. The bids with overall rates quoted below "at par" and above (+10%) of Company's internal estimate will be rejected outright.

12.0 The bidders are required to furnish the composition and status of ownership of the firm in whose name bid documents have been purchased/issued along with one or more of the following documentary evidences (which are applicable to the bidder) in support of the same and scanned copies of the same should be uploaded along with the Un priced bid documents.

12.1 In case of Sole Proprietorship Firm, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, business and residential address, E-mail and phone numbers of the owner and copies of GST Registration Certificate.

12.2 In case of HUF, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form, Family Arrangement indicating therein the name, residential address, E-mail and phone numbers of the owners in general and Karta in particular and copies of GST Registration Certificate.

12.3 In case of Partnership Firm, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mails and phone numbers of all the

partners (including the Managing Partner), registered partnership agreement/deed and copies of GST Registration Certificate.

12.4 In case of Co-Operative Societies, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mails and phone numbers of all the Directors or persons who are at the helm of affairs, registration certificate from Registrar of Co-Operative Societies and copies of GST Registration Certificate.

12.5 In case of Societies registered under the Societies Registration Act, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the Directors or persons who are at the helm of affairs, registration certificate from the Registrar of the state and copies of GST Registration Certificate.

12.6 In case of Joint Stock Companies registered under the Indian Companies Act, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the Directors or persons who are at the helm of affairs, Certificate of Incorporation from the Registrar of Companies, Memorandum and Articles and copies of GST Registration Certificate.

12.7 In case of Trusts registered under the Indian Trust Act, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the Trustee or persons who are at the helm of affairs, registration certificate from the Registrar of the state, Trust Deed and copies GST Registration Certificate.

NOTE: Point no. 12.1 to 12.7 is not applicable for contractors who are already registered with OIL INDIA LIMITED.

13.0 Wherever applicable, the bidder shall have itself registered under Employees' Provident Fund and Miscellaneous Provisions Act, 1952 and follow the relevant statutory provisions including Rules made there-under concerning contractual workers to be engaged by such bidder. If the bidder does not have P.F. Code number at the time of applying for this tender, then the bidder must apply for the same if the contract is awarded to the bidder. Such bidder shall furnish the Provident Fund code number issued by the appropriate Govt. Authority, within 45 days of signing of contract, to Company (or when advised by Company, after 45 days of signing the contract); and all PF related statutory guidelines shall be adhered to by the bidder.

14.0 Before Bidding :

- Bidder(s) are advised to inspect the work site with permission from GM-Civil or his representative, to assess the nature and extent of work and the conditions under which it will be carried out.
- Bidder(s) should clearly understand all the terms & conditions, criteria, specification etc. of this tender.

15.0 The selected bidder will be required to enter into a formal contract, which will be based on their bid, i.e. OIL's Standard Form of Contract.

16.0 PERFORMANCE SECURITY DEPOSIT:

The successful bidder shall furnish a Performance Security Deposit in the form of Letter of Credit/Bank Guarantee (PBG in prescribed format of **Annexure-IV**) as specified above before signing the formal contract. The Security Deposit will be refunded to the Contractor after satisfactory completion of the work, but a part or whole of which shall be used by the Company in realization of liquidated damages or claims, if any or for adjustment of compensation or loss due to the Company for any reason. This Security Money shall not earn any interest.

Note: The bidders are requested to advise the Performance Bank Guarantee issuing bank to comply with the following and ensure to submit, the receipt of the copy of SFMS message as sent by the issuing bank branch, along with the original Performance Bank Guarantee in OIL's tender issuing office:

E-TENDER NO.: CDC9457P19

COVERING LETTER

The Performance Bank Guarantee issued by the Bank shall be routed through SFMS platform as per following details:

- i. "MT 760 / MT 760 COV for issuance of Performance Bank Guarantee.
- ii. "MT 760 / MT 767 COV for amendment of Performance Bank Guarantee.

The above message/intimation shall be sent through SFMS (indicating the Contract Number) by the BG issuing bank branch to Axis Bank, Duliajan Branch, IFS Code: UTIB0001129, Branch address: AXIS Bank Ltd., Duliajan Branch, Daily Bazar, Jyotinagar, Duliajan, District Dibrugarh, PIN: 786602.

Bank Guarantee issued by a Scheduled Bank in India at the request of some other Non-Scheduled Bank of India shall not be acceptable.

17.0 OIL INDIA LIMITED reserves the right to curtail / enhance the scope of the work stated above or cancel, if required.

18.0 The amount of retention money shall be released after 6 (six) months from the date of completion certified by the concerned department.

19.0 The work shall have to be started within seven days from the date of work order.

20.0 Time Schedule: The time allowed for completing the work will be reckoned from the date of issue of work order. Time is the essence of the Contract and failure on part of the contractor to complete the work within the stipulated time, shall entitle the Company to impose liquidated damages and / or penalty from the contractor as per terms of the Contract.

21.0 The contractor will be required to allow OIL officials to inspect the work site and documents in respect of the workers payment.

22.0 BACKING OUT BY BIDDER: In case any bidder withdraws their bid within the bid validity period, the Bid Security will be forfeited and be debarred from further tendering as per OIL's banning policy dated 6th Jan 2017 available at OIL's website.

23.0 BACKING OUT BY L-1 BIDDER AFTER ISSUE OF LOA: In case LOA issued is not accepted by the L1 bidder or the Performance Security is not submitted as per the terms of the contract within the time specified in the Bid Document, the Bid Security shall be forfeited and the bidder shall be dealt as per OIL's banning policy dated 6th Jan 2017 available at OIL's website.

24.0 FURNISHING FRAUDULENT INFORMATION/DOCUMENT: If it is found that a Bidder/Contractor has furnished fraudulent document/information, the Bid Security/ Performance Security shall be forfeited and the party shall be debarred as per the OIL's Banning Policy dated 6th Jan 2017 available at OIL's website. **Annexure VI must be duly filled in bidder's letter head and upload the scanned copy of the same along with techno-commercial bid.**

25.0 Bidder(s) must also furnish the followings:

- a) NAME OF FIRM :
- b) DETAIL POSTAL ADDRESS :
- c) MOBILE / TELEPHONE NO :
- d) E-MAIL ADDRESS :
- e) FAX NO (If available) :
- f) CONTACT PERSON :
- g) VENDOR CODE :
- h) GST Registration Number (If available):

26.0 The tender will be governed by :

- a) Covering Letter.
- b) Part – I - General Terms and Conditions for Works Contract. (GCC)
- c) Part - II - Schedule of Work, Unit and Quantity (SOQ)

- d) Part - III - Particular Specification, Special Terms, Conditions & Instructions of Contract (SCC)
- e) Part - IV - SCPME
- f) Part- V- Safety Measures
- g) Part- VI - Integrity Pact
- h) Bid Rejection Criteria & Bid Evaluation Criteria (BRC/BEC).
- i) Annexure-III (Format for **Bid Security** in the form of Bank Guarantee.)
- j) Annexure-IV (Format for **Performance Bank Guarantee** in the form of Bank Guarantee.)

Special Note:

Please note that all tender forms and supporting documents are to be submitted on-line through OIL's E-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with tender no. and due date at following address:

**CGM Contracts,
Contracts Department,
Oil India Limited,
Duliajan- 786602, Assam**

- a. ORIGINAL BID SECURITY (Only in case of Bidder(s) submitting Bid Security in the form of LC/Bank Guarantee.

A scanned copy of Bid Security should also be uploaded along with the Unpriced Techno-Commercial Bid documents.

- b. Any other document required to be submitted in original as per tender requirement.

Scanned copy(s) of the same should also be uploaded along with the Un-priced Techno-Commercial Bid documents.

The above documents including the Original Bid Security {in case of bidders submitting Bid Security in the form of Bank Guarantee/LC} must be received at OIL's CGM (Contracts) office at Duliajan on or before the scheduled date & time specified in the NIT, failing which the bid shall be rejected.

Bidders are requested to examine all instructions, forms, terms and specifications in the bid. Failure to furnish all information required as per the bid or submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in the rejection of its offer without seeking any clarifications. Offers sent without the requisite value of prescribed Bid Security (if called for in the bid) in original will be ignored straightway.

27.0 The tender is invited under SINGLE STAGE - COMPOSITE BID SYSTEM. The bidders shall submit both the "TECHNICAL" and "PRICED" bids through electronic form in the OIL's E-Procurement portal within the Bid Closing Date and Time stipulated in the E-Tender. The Technical Bid should be submitted as per Scope of Work & Technical Specifications along with all technical documents related to the tender and uploaded under "Technical Attachment" Tab only. Bidders must note that no price details should be uploaded in "Technical Attachment" Tab Page. Details of prices as per Price Bid format/Priced bid to be uploaded under "Notes and Attachment" Tab. A screen shot in this regard is shown below. Offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria. In Bid opening, both Technical & Priced Bids will be opened.

Please go through the "General Guidelines to bidders"> NEW VENDOR MANUAL (Effective 12.04.17)" provided in OIL's e-Portal, in detail before uploading the document.

NB: In order to bid for OIL e-tenders all the vendors are required to obtain a legally valid Digital Certificate Class III [Organization] along with Encryption Certificate as per Indian IT Act from the licensed Certifying Authorities (CA) operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. Digital Signature Certificate comes in a pair of Signing/verification and Encryption/decryption certificate. Bidder should have both the Signing/verification and Encryption/Decryption certificate for Signing and encryption, decryption purpose respectively. The driver

needs to be installed once, without which the DSC will not be recognized. While participating on e-Tendering the DSC token should be connected to your system.

Encryption certificate is mandatorily required for submission of bid. In case bidder created response with one certificate (using encryption key) and bidder change his Digital Signature Certificate then old certificate (used for encryption) is required in order to decrypt his encrypted response for getting the edit mode of the response. Once decryption is done, bidder may use new DSC certificate for uploading and submission of their offer. It is the sole responsibility of the bidder to keep their DSC certificate properly. In case of loss of the certificate, OIL INDIA LTD is not responsible.

28.0 The Integrity Pact is applicable against this tender: OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide "Part-VI Integrity Pact" of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be returned by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who sign the bid, i.e., who is duly authorized to sign the bid. Any bid not accompanied by Integrity Pact Proforma duly signed (digitally) by the bidder shall be rejected straightway. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid.

Note: Shri Rajiv Mathur, IPS (Retd.), Former Director, IB, Govt. of India, E-Mail ID: rajivmathur23@gmail.com, Shri Satyananda Mishra, IAS(Retd.) Former Chief Information Commissioner & Ex-Secretary, DOPT, Govt. of India, e-Mail id: satyanandamishra@hotmail.com and Shri Jagmohan Garg, Ex-Vigilance Commissioner, CVC e-Mail id: jagmohan.garg@gmail.com have been appointed as Independent External Monitors.

29.0 SCREEN SHOT :

On "EDIT" Mode, bidders are advised to upload "Technical Bid" and "Priced Bid" in the respective places as indicated below:

Note:

* The "Technical Bid" shall contain all techno-commercial details **except the prices**.

** The "Priced bid" must contain the price schedule and the bidder's commercial terms and conditions, if any. For uploading Priced Bid, first click on Add Attachment, a browser window will open, select the file from the PC and name the file under Description, Assigned to General Data and click on OK to digitally sign and upload the File. Please click on Save Button of the Response to Save the uploaded files.

A. Uploading of Technical Bid : Technical files to be added under RFX Information >"Technical Attachments"

The screenshot shows the 'Technical Attachments' tab selected. The interface includes a 'Notes' section with a 'Clear' button and a table with columns 'Category' and 'Description'. The 'Category' column lists 'Conditions of Participation', 'Bid Invitation/Auction Text', 'Bidder's Remarks', and 'Purchaser's Remarks'. The 'Description' column shows '-Empty-' for each. Below the 'Notes' section is an 'Attachments' section with a 'cFolder Attachments' table. The table has columns: 'Add Attachment', 'Delete', 'Verify Signature', 'cFolder Name', 'Category', 'Description', 'File Name', 'Version', and 'Processor'. The table is currently empty, with a message 'The table does not contain any data'.

B. Uploading of Price Bid :

Edit RFX Response:

Submit Read Only Print Preview Check Technical RFX Response Close Save Delete Verify Signature Sign Response Refresh Smartform System Information Create Memory Snapshot

RFX Response Number: 60032949 RFX Number: SDO699P17 Status: Saved Submission Deadline: 28.02.2017 11:00:00 INDIA Opening Date: 28.02.2019 11:00:00 INDIA Remaining Time: 4 Days 01:50:00

RFX Owner: BHARALI Total Value: 0.00 INR RFX Response Version Number: Active Version RFX Version Number: 2

RFx Information Items **Notes and Attachments** Conditions Summary Tracking

Notes

Add Clear

Assigned To	Category	Text Preview

Attachments

Sign Attachment Add Attachment Edit Description Delete Create Qualification Profile Filter Settings

Assigned To	Category	Description	File Name	Version	Processor	Checked Out	Type	Size (KB)	Changed by	Changed on
The table does not contain any data										

C. After Uploading of Price bid Click 'Save'

Edit RFX Response:

Submit Read Only Print Preview Check Technical RFX Response Close **Save** Delete Verify Signature Sign Response Refresh Smartform System Information Create Memory Snapshot

RFX Response Number: 60032949 RFX Number: SDO699P17 Status: Saved Submission Deadline: 28.02.2017 11:00:00 INDIA Opening Date: 28.02.2019 11:00:00 INDIA Remaining Time: 4 Days 01:19:48

RFX Owner: BHARALI Total Value: 0.00 INR RFX Response Version Number: Active Version RFX Version Number: 2

RFx Information Items **Notes and Attachments** Conditions Summary Tracking

Notes

Add Clear

Assigned To	Category	Text Preview

Attachments

Sign Attachment Add Attachment Edit Description Delete Create Qualification Profile Filter Settings

Assigned To	Category	Description	File Name	Version	Processor	Checked Out	Type	Size (KB)	Changed by	Changed on
Document Header	Standard Attachment	PRICE BID	PRICE_BID.xls.sig	1			sig	10	V210445	24.02.2017

Once Saved ,the Data will be Encrypted & the Encryption Certificate will be in use.

D. Click to select the desired Encryption certificate & Encrypt Bid:

Please select an appropriate certificate

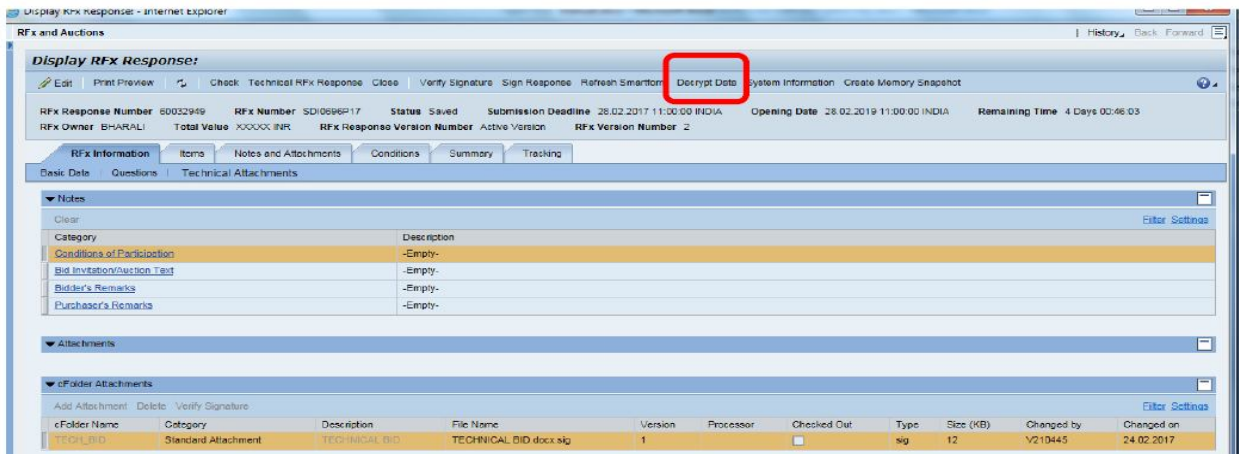
Issued To	Version	Email	Issued By	Purpose	Valid Till
BHARALI BALEN	3	balen_bharali@oilindia.in	e-Mudhra Sub CA for Class 3... Encryption		22-Dec-2017

Encrypt Bid **Cancel**

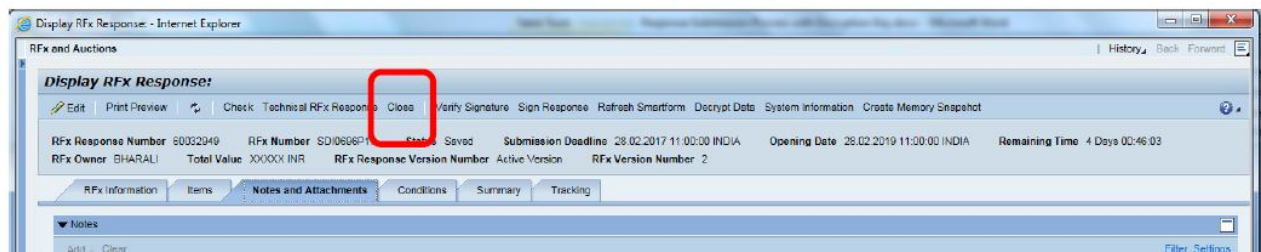
Click here to Encrypt Bid

The Encrypted Data will be displayed only when click 'Decrypt data'

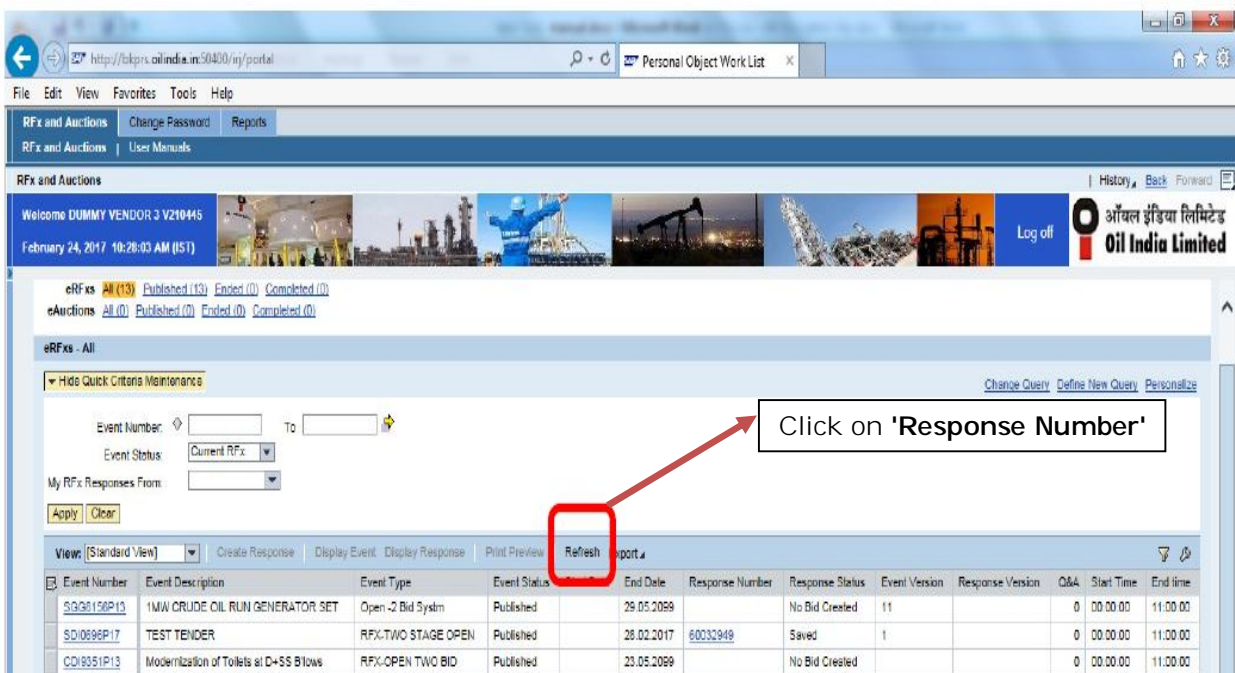
E. The Encrypted Data will be displayed only when click 'Decrypt data'



F. Click on 'Close'



G. Click on 'Refresh'. Then Click on 'Response No.'

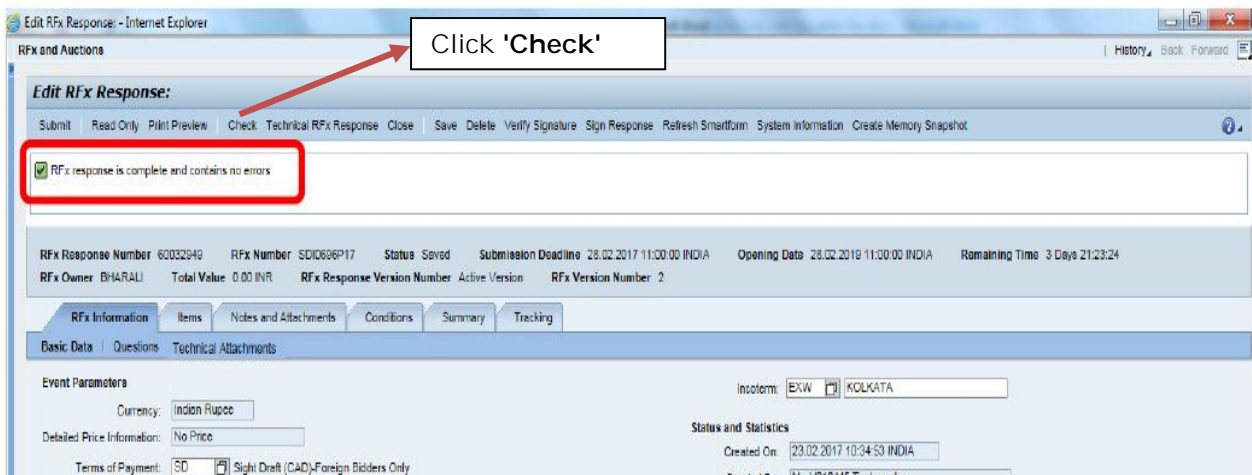


Now Uploading part is complete. Bidders are requested to go to the Initial screen. It is always better to come to the first screen and refresh the page and then going in into the response for the submission process.

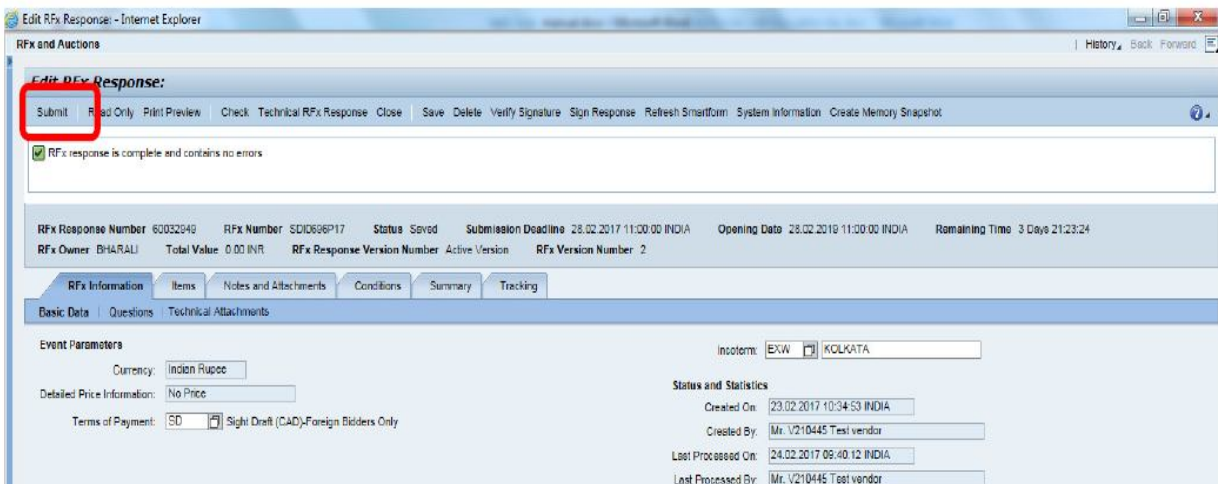
H. On 'Edit' mode Click to select the same Encryption certificate used for De-cryption else data will not Decrypt.



I. After Entering User pin , Click '**Check**'. Bidder may submit the response in case there is no error.

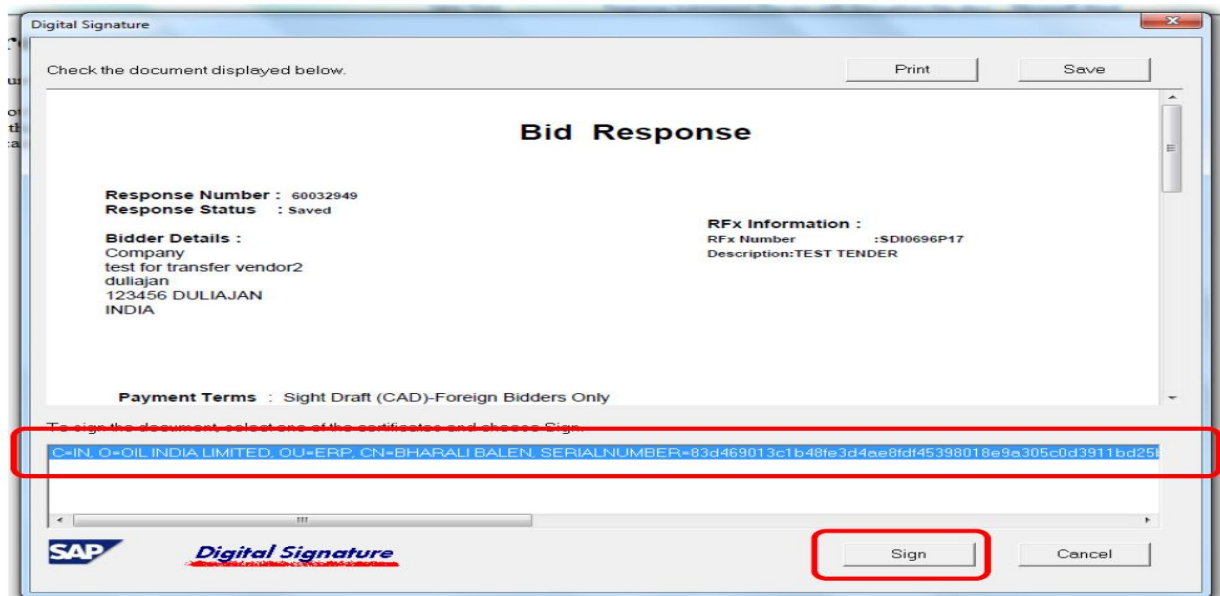


J. Click on '**Submit**' button

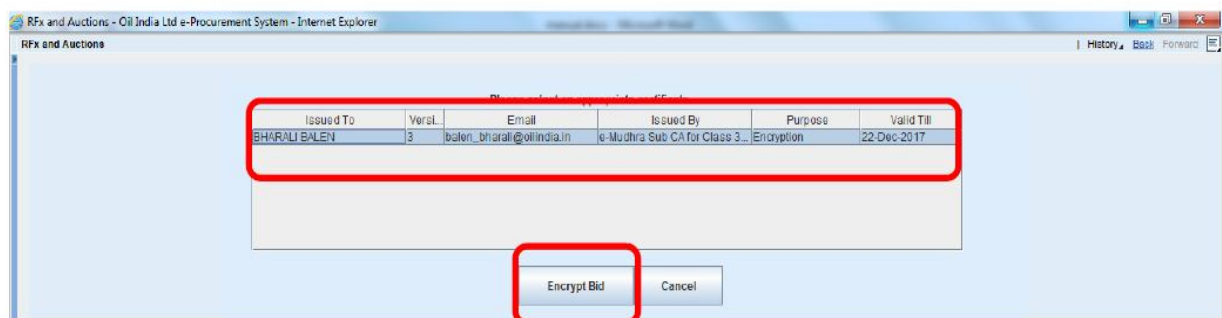


Before submit, Please do check all the documents uploaded and on-line data maintained are correct.

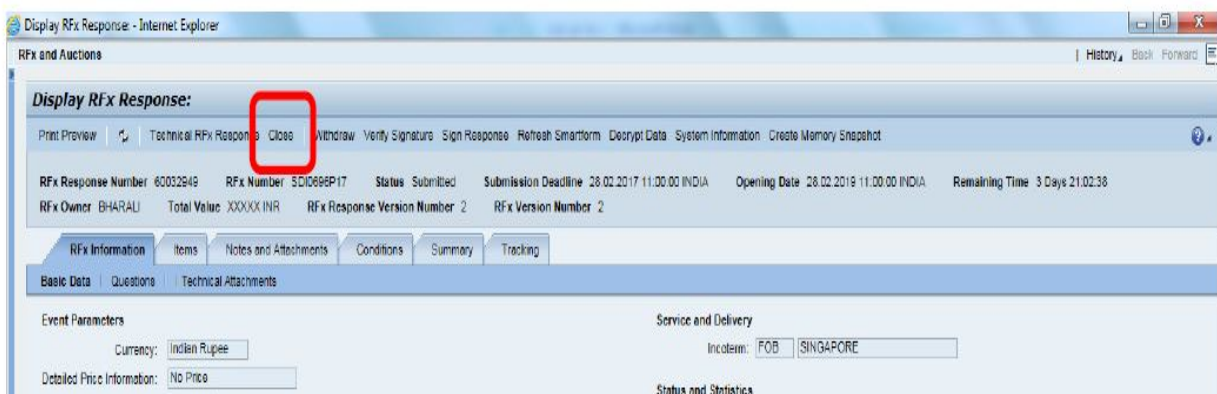
K. After Clicking 'Submit' below pop up will open. Select Digital Signature & Sign.



L. After Signing the response has to be encrypted again. Select the encryption certificate and **Encrypt Bid**.



M. Click 'Close'



E-TENDER NO.: **CDC9457P19**

COVERING LETTER

N. Click on **'Refresh'**. The status of Response must be **'Submitted'**

The screenshot shows the Oil India Limited e-tender portal. At the top, there's a navigation bar with 'RFx and Auctions', 'Change Password', and 'Reports'. Below this, a banner for 'Welcome DUMMY VENDOR 3 Y210445' is displayed. The main content area shows a list of eRFxs and eAuctions. A red arrow points to the 'Refresh' button in the 'View' dropdown menu. Below the button, a table lists various tender events with columns for Event Number, Event Description, Event Type, Event Status, Start Date, End Date, Response Number, Response Status, Event Version, Response Version, Q&A, Start Time, and End time. The 'Response Status' column for the event 'CDC9457P19' is highlighted with a red box and labeled 'Submitted'.

Event Number	Event Description	Event Type	Event Status	Start Date	End Date	Response Number	Response Status	Event Version	Response Version	Q&A	Start Time	End time
SQ08156P13	1MW CRUDE OIL RUN GENERATOR SET	Open -2 Bid System	Published		29.05.2099		No Bid Created	11		0	00:00:00	11:00:00
SQ0899P17	TEST TENDER	RFx-TWO STAGE OPEN	Published		28.02.2017	60032949	Submitted	1	2	0	00:00:00	11:00:00
CDI9351P13	Modernization of Toilets at D+SS Blows	RFx-OPEN TWO BID	Published		23.05.2099		No Bid Created			0	00:00:00	11:00:00
CDI9350P13	Modernization of Toilet TD + Blows	RFx-OPEN TWO BID	Published		23.05.2099		No Bid Created			0	00:00:00	11:00:00
CDI9677P17	Constn of drilling I OCMRO at Jaisal area	Open -2 Bid System	Published		25.06.2099		No Bid Created			0	00:00:00	11:00:00

This is the end of **Response submission with Encryption key** process.

30.0 OIL now looks forward for your active participation in the tender.

CGM-CONTRACTS
For RESIDENT CHIEF EXECUTIVE

BID EVALUATION CRITERIA (BEC)/BID REJECTION CRITERIA (BRC)**(A). BID EVALUATION CRITERIA (BEC):**

1.0 The bid shall conform generally to the specifications and terms and conditions given in the Tender Documents. Bids will be rejected in case services offered do not conform to the required parameters stipulated in the technical specifications. Notwithstanding the general conformity of the bid to the stipulated specifications, the following mandatory requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and rejected. All the documents related to **BEC** must be submitted along with the Techno-Commercial Bid.

2.1 Interested bidders shall have to submit the following documents to qualify for the tender:

2.1.1

- a. One successfully completed similar work of minimum value of **₹ 117,23,000.00** under tender with CPWD, Railways, APWD, MES, NRL, ONGCL, OIL or any other Government Organization / Public Sector Undertaking during the last seven (07) years **reckoned from the original bid closing date**.
- b. For proof of requisite experience of **SIMILAR work**, Job Completion Certificate clearly mentioning Gross value of job done, Nature of works, Contracts period/ Contract Start and Completion date issued by CPWD, Railways, APWD, MES, NRL, ONGCL, OIL or any other Government Organization / Public Sector Undertaking must be submitted along with the bid.
- c. SIMILAR work executed by a bidder for its own organization / subsidiary will not be considered as experience for the purpose of meeting BEC.

2.1.1.1 **The bidder shall have a valid Electrical Contractor's License issued by Electrical Licensing board, Govt. of Assam or shall form a consortium / tie-up / collaboration with an Electrical contractor, having required technical credentials as per tender and holding valid Electrical Contractor's License issued by Electrical Licensing board, Govt. of Assam for executing the jobs. In support of the above, the bidder shall submit a copy of either of the above Electrical Contractor's License.**

[The Bidder who have submitted any of the above Electrical contractor's Licenses, other than issued by Electrical Licensing board, Govt. of Assam, have to provide an undertaking along with the bid, stating that on award of contract to them, they will submit a valid Electrical License issued by Electrical Licensing board, Govt. of Assam in their name or get their Electrical License recognized/endorsed by Electrical Licensing board, Govt. of Assam for executing the job at Assam within 30 days from date of award of Contract and same will be subsequently reviewed till the completion of the contract.]

The bidder or their collaborators / consortium partner must have experience in internal electrification works in Office/ Residential Building during the last 7(seven) years reckoned from the original bid closing date in any organizations as listed in Civil Experience. In case of collaboration / consortium / tie-up with any Electrical firm as mentioned above, the bidder must furnish an MoU entered into with the collaborator / consortium partner towards providing the requisite service as per the terms of the contract.

2.1.2

- a) Annual Financial Turnover of the bidder during **any of preceding three financial / accounting years from the original bid closing date** should be at least **₹ 46,90,000.00**.
- b) **Net worth** of bidder must be positive for preceding financial/ accounting year.
- c) Considering the time required for preparation of Financial Statements, if the last date of preceding financial/accounting year falls within the preceding six months reckoned from the original bid closing date and the Financial Statements of the preceding financial / accounting year are not available with the bidder, then the financial turnover of the previous three financial/ accounting years excluding the preceding financial / accounting year will be considered. In such cases, the Net worth of the previous financial / accounting year excluding the preceding financial / accounting year will be considered. However, the bidder has to submit an affidavit / undertaking certifying that "the balance sheet / Financial Statements" for the financial year(as the case may be) has actually not been audited so far.

Note: For proof of Annual Turnover & Net worth any one of the following document must be submitted along with the bid:-

- i) A certificate issued by a practicing Chartered/ Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover & Net worth as per format prescribed in **Annexure-II**.

OR

- ii) Audited Balance Sheet along with Profit & Loss account.

Note: In case the bidder is Central Govt. organization/ PSU/ State Govt. organization/ Semi-State Govt. Organization or any other Central/ State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder has to provide documentary evidence for the same.

2.1.3 Bids must be valid for minimum **90 (Ninety) days** from the date of Technical Bid opening. If bidder does not submit / declare bid validity period, it will be presumed that the bid validity is **90 (Ninety) days**.

Note: In case of extension of Bid Opening Date, Bid validity should be extended suitably by the bidder, as and when advised by OIL.

2.1.4 Bid Security must be furnished (except those exempted) as a part of the Technical Bid. Bidders already having User ID & Password for OIL's e-portal can pay the requisite Bid security against the individual IFBs through the online payment gateway on or before 1:30 p.m. on the bid closing date. Alternatively, bidder can submit Bid Security amount through Bank Guarantee (in original) in prescribed format enclosed with this tender, which must reach the Office of CGM-Contracts, OIL, Duliagan on or before 1:30 p.m. on the bid closing date.

Bid Security (EMD):- Only payments through online payment gateway or Bank Guarantee /LC (to be submitted in original) will be accepted. **DD/Cheques/Cashier Cheque etc. will not be accepted.**

The amount of Bid Security shall be as specified in the NIT.

Note:

- (a) In case the Bidder submits Bid security in the form of Bank Guarantee (BG), the BG must be valid for **minimum 120 days** from the original bid opening date.
- (b) In case of extension of Bid Opening Date, Bid Security validity should be extended suitably by the bidder, as and when advised by OIL.

2.1.5 OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Part-VI of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be uploaded by the bidder (along with the Un-priced Techno-Commercial Bid).-Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact have been signed by the bidder's authorized signatory who sign the Bid.

2.1.6 The bidders must submit documentary evidence for BEC clause numbers **2.1.1, 2.1.1.1 and 2.1.2**. All the documents should be legible. The bidders **must have Encryption Certificate along with Digital Signature Certificate (DSC) of Class 3 [Organization Type]** to upload all the documents.

No earnest money deposit / bid security will be necessary for procurement from Central Government department and Public Sector Undertaking.

3.0 Notes to Clause no. 2.1.1 above:

- (a) **"Similar work"** mentioned in Paragraph 2.1.1 above means the following:

Definition of similar work: Construction of R.C.C. building, Construction of RCC Bridge, Construction of overhead water tank.

(b) Non-submission of the documents as specified in all the paragraphs above will result in rejection of bids.

4.0 The bids conforming to the specifications, terms and conditions stipulated in the tender documents and considered to be responsive will be evaluated as per the procedure mentioned below:

- i. Bid will be opened on schedule date & time as specified in the NIT and all the bids where the bidders have quoted the lowest price (within the permissible percentage as per NIT) will be selected for conducting Draw of Lots (DoL). DoL will be conducted within a short period after Bid Closing Date. In the DoL, 7 (seven) numbers of bidders will be selected first, in the order of B-1 (Bidder-1), B-2 B-3, B-4, B-5, B-6 and B-7. The technical scrutiny will be carried out for these seven bidders only. If the bid of bidder B-1 is found to be technically qualified, B-1 will be the successful bidder (Priority-1 bidder) and the contract will be awarded to B-1. If B-1 is not found to be technically qualified but B-2 is technically qualified, B-2 will be awarded the contract, ---- and so on; i.e. whoever becomes the first technically qualified bidder in the order of B-1 → B-2 → B-3 → B-4 → B-5 → B-6 → B-7, will be the successful bidder (P-1). In this way, P-1 (Priority-1) and P-2 bidders will be selected. The contract will be awarded to the P-1 bidder only. However, in case the bidder P-1 is not able to carry out the job due to any reason, P-2 may be awarded the job, if the same is approved by Company's competent authority. In case, none of these seven bidders are found to be technically acceptable, the draw of Lot will be again conducted to select 7 more bidders as B-8 to B-14 and similar steps will be followed thereon as explained above. The system of conducting further draw of lots will be followed till a technically acceptable bidder is selected.
- ii. Bidder should note that deficit documents will not be sought from the bidders. The bids will be evaluated as per the documents received from the bidders at the time of bid opening. Any bid, which is not supported with the requisite documents as per the NIT, will be rejected straightway without seeking any further clarification and deficit document.

Note: The Company's Internal Estimated Rates, as indicated in Part-II, are inclusive of all overheads, taxes, duties, levies etc. except P.F. & GST.

(B). BID REJECTION CRITERIA (BRC):

1. The bids are to be submitted in single stage under composite bid system i.e. Un-priced Techno-Commercial Bid and Price Bid together. Only the Price Bid should contain the quoted price (percentage only).
2. Bid security shall be furnished as a part of the Techno Commercial Un-priced Bid. The amount of bid security should be as specified in the NIT. Any bid not accompanied by a proper bid security will be summarily rejected.
3. Bid Documents / User Id & Password for OIL's E-Tender portal are not transferable.
4. Any bid received in the form of Physical document/ Telex/Cable/Fax/E-mail will not be accepted.
5. Bidders must quote clearly and strictly in accordance with the price schedule outlined in Price Bidding Format attached under "Notes and Attachments" tab in the main bidding engine of OIL's e-Tender portal; otherwise the bid will be rejected. All other techno-commercial documents other than price details to be submitted with Un-priced Techno-Commercial Bid as per tender requirement in the c-Folder link (collaboration link) under "Technical RFx Response" Tab Page only.
6. Bidders must accept and comply with the following provisions as given in the tender document. Deviations to such provisions shall make the bid liable for rejection.
 - a. Firm price
 - b. EMD / Bid Bond
 - c. Scope of work
 - d. Specifications
 - e. Price schedule
 - f. Delivery / completion schedule
 - g. Period of validity of bid

- h. Liquidated Damages
- i. Performance bank guarantee / Security deposit
- j. Guarantee of material / work
- k. Arbitration / Resolution of Dispute
- l. Force Majeure
- m. Applicable Laws
- n. Integrity Pact

(C). GENERAL:

- i. Submission of Forged Documents: Bidders should note that Company may verify authenticity of all the documents /certificates / information submitted by the bidder(s) against the tender. In case at any stage of tendering process or Contract execution etc., if it is established that bidder has submitted forged documents / certificates / information towards fulfilment of any of the tender / contract conditions, Company shall immediately reject the bid of such bidder(s) or cancel / terminate the contract and forfeit EMD / SD submitted by the bidder(s), besides taking action as per OIL's Banning Policy dated 6th January 2017, available in the OIL's website.
- ii. In case bidder takes exception to any clause of bidding document not covered under BEC/BRC, then the Company has the discretion to load or reject the offer on account of such exception if the bidder does not withdraw / modify the deviation when / as advised by company. The loading so done by the Company will be final and binding on the bidders. No deviation will however be accepted in the clauses covered under BRC.
- iii. To ascertain the substantial responsiveness of the bid the Company reserves the right to ask the bidder for clarification in respect of clauses covered under BEC/BRC also and such clarifications fulfilling the BEC/BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be evaluated based on the submission. However, mere submission of such clarification shall not make the offer responsive, unless Company is satisfied with the substantial responsiveness of the offer.
- iv. If any of the clauses in the BRC contradicts with other clauses of Bidding document elsewhere, the clauses in the BRC shall prevail.
- v. Bidder(s) must note that requisite information/financial values etc. as required in the BEC/BRC & Tender are clearly understandable from the supporting documents submitted by the Bidder(s); otherwise Bids shall be rejected.
- vi. OIL will not be responsible for delay, loss or non-receipt of applications for participating in the bid sent by mail and will not entertain any correspondence in this regard.

OIL INDIA LIMITED
(A Govt. of India Enterprise)
Contracts Department,
Duliajan, DISTRICT: DIBRUGARH
ASSAM, PIN: 786602
Works Contract

DESCRIPTION OF WORK/SERVICES:- Construction of New Office Building in Civil Engineering Department at Duliajan including internal electrification and supply of all materials except Cement.

GENERAL CONDITIONS OF CONTRACT (GCC)

MEMORANDUM OF AGREEMENT made this _____ day of _____ between OIL INDIA LIMITED a Company incorporated under the Companies Act 1956 and having its Registered Office at Duliajan in the District of Dibrugarh, Assam (hereinafter called Company) of the one part and Shri/Smti _____ and Shri/Smti _____ carrying on business as partners /proprietor under the firm name and style of M/s. _____ with the main Office at _____ in the District of _____ aforesaid (hereinafter called 'Contractor') on the other part.

WITNESSETH:

1. a) The contractor hereby agrees to carry out the work set down in the Schedule of work which forms part-II of this Contract in accordance with the 1968 General Conditions of Contract of Oil India Limited and General Specifications read in conjunction with any drawings and Particular Specifications & instructions which forms Part-III of the contract utilizing any materials/services as offered by the Company as per Part-IV of the contract at location _____.

b) In this Contract all words and expressions shall have the same meaning as are respectively assigned to them in the 1968 General Conditions of Contract of Oil India Limited which the Contractor has perused and is fully conversant with before entering into this Contract.

c) The clauses of this contract and of the specifications set out hereunder shall be paramount and in the event of anything herein contained being inconsistent with any term or terms of the 1968 General Conditions of Contract of Oil India Limited, the said term or terms of the 1968 General conditions of Contract to the extent of such inconsistency, and no further, shall not be binding on the parties hereto.

2. i) The contractor shall provide all labour, supervision and transport and such specified materials described in part-II of the Contract including tools and plants as necessary for the work and shall be responsible for all royalties and other levies and his rates shall include for these. The work executed and materials supplied shall be to the satisfaction of the Company's Engineer and Contractor's rates shall include for all incidental and contingent work which although not specifically mentioned in this contract are necessary for its completion in a sound and workman like manner.

ii) Contractor shall have to produce necessary cash memos towards forest produce used against the contract to Head (Civil) used against this contract from the authorities prior to processing of final payment. In absence of cash memos, the final bill shall not be processed.

3. The Company's Engineer shall have power to:

a) Reduce the rates at which payments shall be made if the quality of work although acceptable is not up to the required standard set forth in the OIL Standard Specifications which have been perused and fully understood by the Contractor.

b) Order the Contractor to remove any inferior material from the site and to demolish or rectify any work of inferior workmanship, failing which the Company's Engineer may arrange for any such work to be demolished or rectified by any other means at the Contractor's expenses.

c) Order the Contractor to remove or replace any workman/ supervisor/ engineer/ project-in-charge or any other contractor's personnel who he (The Engineer) considers incompetent or unsuitable; the

Engineer's opinion as to the competence and suitability of any personnel engaged by the Contractor shall be final and binding on the Contractor.

d) Issue to the Contractor from time to time during the progress of the work such further drawings and instructions as shall be necessary for the purpose of proper and adequate execution and maintenance of the works and the Contractor shall carry out and be bound by the same.

e) Order deviations in Part II and III of this Contract. All such deviation orders shall be in writing and shall show the financial effect, if any, of such deviation and whether any extra time is to be allowed. The rates to be applied for such Deviation Order shall be the same for those appearing in Company's Schedule of Rate in force on the date of issue of such Deviation Order, to which the contractor has no objection.

4. The Contractor shall have no claim against the Company in respect of any work which may be withdrawn but only for work actually completed under this contract. The contractor shall have no objection to carry out work in excess of the quantities and items stipulated in Part-II (SOQ). In case of positive variation in quantities of any items from the quantity mentioned in the tender / contract, the contractor will have to carry out the positive varied quantity at the contract rate, or the internally estimated rate, whichever is lower.

However, during the actual execution of the contract, if the contract is to be utilised in a different zone due to Company's operational requirement, where the rates of the contractual items in the OIL's Schedule of Rates (SOR) are different from the contractual rates, then the rates of OIL's SOR, prevailing in the working zone (the zone where the contract is actually utilised) at the time of floating the tender, will be applicable for the contractual items (for the contractual quantities as well as for the additional quantities, if required to be executed).

If any additional items (items not covered in the tender / contract) are required to be executed during actual execution of works, the payment of such items shall be made as per the rates of OIL Schedule of Rates (SOR) prevailing in the working zone (the zone where the contract is utilized) at the time of issuance of advice by Company to execute such additional items.

5. The Company reserves the right to cancel this Contract at any time upon full payment of work done and the value of the materials collected by the contractor for permanent incorporation in the work under this contract particularly for execution of this contract up to the date of cancellation of the Contract. The valuation of the work done and the materials collected shall be estimated by the company's Engineer in presence of the contractor. The Contractor shall have no claim to any further payment whatsoever. The valuation would be carried out exparte if Contractor fails to turn up despite reasonable notice which will be binding on the Contractor.

6. The Contractor hereby undertakes to indemnify the Company against all claims which may arise under the under noted Acts:-

- I. The Mines Act.
- II. The Minimum Wages Act, 1948.
- III. The Workman's Compensation Act, 1923.
- IV. The Payment of wages Act, 1963.
- V. The Payment of Bonus Act, 1965.
- VI. The Contract Labour (Regulation & Abolition) Act, 1970 and the rules framed there under.
- VII. Employees' Pension Scheme, 1995.
- VIII. Inter-State Migrant (Regulation of Employment and Condition of Service) Act. 1979.
- IX. The Employees Provident Fund and Miscellaneous Provisions Act, 1952.
- X. Goods and Service Tax (GST) Law,

or any other Acts or Statute not here in above specifically mentioned having bearing over engagement of workers directly or indirectly for execution of work. The Contractor shall not make the Company liable to reimburse the Contractor for the statutory increase in the wage rates of the Contract Labour appointed by the Contractor. Such Statutory increase in the wage rates of Contract Labour shall be borne by the contractor.

7. The Contractor shall clear away all rubbish and surplus material from the site on completion of work and shall leave the site clean and tidy.

8. The Contractor must complete the work within **72** weeks of the written order to commence work. During the currency of the job, the work progress must be commensurate with the time elapsed. In the

event of any delay on the contractor's part, he/she will be liable to pay to the company liquidated damages at the rate of 1/2% (Half percent) per week of the contract price of the item(s) delayed in completion and the maximum value of the liquidated damage will be 7.5% of the contract price of the item(s) delayed provided the item(s) delayed are not critical for commissioning and final utilization of the work. If, however, the item(s) delayed in completion are critical for commissioning and final utilisation of the work then the contractor will be liable to pay liquidated damages by way of penalty at the rate of 1/2% (Half percent) per week of delay of the total contract cost subject to a maximum of 7.5% of total contract cost.

The GM Civil's certificate as to the criticality or otherwise of an item shall be final.

The payment of liquidated damages/penalty may be reduced or waived at the sole discretion of the Company whose decision in this regard will be final.

In the event of there being undue delay in execution of the Contract, the Company reserves the right to cancel the Contract and / or levy such additional damages as it deems fit based on the actual loss suffered by the company attributable to such delay. The company's decision in this regard shall be final.

9. In order to promote, safeguard and facilitate the general operational economic in the interest of the Company during the continuance of this contract the Contractor hereby agrees and undertakes not to take any direct or indirect interest and or support, assist, maintain or help any person or persons engaged in antisocial activities, demonstration, riots, or in any agitation prejudicial to the Company's interest and any such even taking shape or form at any place of the Company's works or and its neighbourhood.

10. The tendered all-inclusive Price (i.e. the Contract price) is ₹ _____ **(Not to be filled up by bidder while submitting the offer in c-Folder. This figure will be filled up by OIL at the time of award of the contract to the successful bidder.)**
(₹ _____ only) but the Company shall pay the Contractor only for actual work done at the all inclusive rates set down in the Schedule of work part II of this Contract.

On account payment may be made, not oftener than monthly, up to the amount of 92.5% of the value of work done. Final payment will be made only after satisfactory completion of the work. Such final payment shall be based on the work actually done allowing for deviations and any deductions and the measurement shall be checked and certified correct by the Company's Engineer before any such final payment is made.

11. The contractor employing 20 (twenty) or more workmen on any day preceding 12 months shall be required to obtain requisite licence at his cost from the appropriate Licensing Officer before undertaking any Contract work. The Contractor shall also observe the rules & regulations framed under the Contract Labour (Regulation & Abolition) Act.

12. Wages shall be paid by the Contractor to the workmen directly without any intervention of any Jamadars or Thekadars and that the Contractor shall ensure that no amount by way of commission or otherwise be deducted/ recovered by the Jamadar from the wages of the workmen.

13. The Company for any reason whatsoever and of which the company shall be sole judge may terminate this Contract with a 24 hours notice in writing to the Contractor and in the event of Company's so doing the clause 5 here of shall prevail and the accounts between the parties will be in accordance therewith finalised.

14. The Contractor will not be allowed to construct any structure (for storage / housing purpose) with thatch, bamboo or any other inflammable materials within any company's fenced area.

15. The Contractor shall ensure that all men engaged by him/her are provided with appropriate protective clothing and safety wear in accordance with the Oil Mines Regulations 2017. The Company's representative shall not allow/accept those men who are not provided with the same.

16. All Statutory taxes levied by the Central and State Government or any other competent authority from time to time, except PF & GST, will be borne by Contractor and the contract cost is inclusive of all tax liabilities except PF & GST. However, any subsequent increase in such statutory taxes after bid

opening day will be borne by the Company. Similarly if there is any decrease in such statutory taxes after bid opening, the Company shall recover the decreased amount of such taxes from the contractor.

17. The Contractor shall deploy local persons in all works.

18. The Contractor shall not engage minor labour below 18(eighteen) years of age under any circumstances.

19. The Contractor and his/her workmen shall strictly observe the rules and regulations as per Mines Act (Latest editions).

20. **SPECIAL CONDITIONS:**

a) The amount of retention money shall be released after 6(six) months from the actual date completion of the work.

b) The contractor will be required to allow OIL Officials to inspect the work site and documents in respect of the workers' payment.

c) Contractor(s) whosoever is liable to be covered under the P.F. Act and contract cost is inclusive of P.F., must ensure strict compliance of provisions of Provident Fund and Miscellaneous Provisions Act, 1952 in addition to the various Acts mentioned elsewhere in this contract. Any contractor found violating these provisions will render themselves disqualified from any future tendering. As per terms of the contract, if applicable, the Contractor must deposit Provident Fund Contribution (covering Employee's & employer's share) with the competent authority monthly under their direct code. The Contractor shall be required to submit documentary evidence of deposit of P.F. Contribution to the Company. In case of failure to provide such documentary evidence, the Company reserves the right to withhold the amount equivalent to P.F. Contribution on wage component.

d) In case P.F. is not included in the contract cost and later on required to be deposited by the Contractor, the same will be reimbursed on production of documentary evidence of depositing the same to the authority concerned. 12% P.F. will be applicable on the wage component of the contract cost.

e) All safety precautions to be maintained by the Contractor at his own cost as per safety rules and regulations.

f) The Contractor shall use pump if needed for dewatering of pit while excavation for which no extra payment will be made.

g) The Contractor shall have to work during rainy seasons also.

h) Watch and ward, loss or damage to Company's property, theft and other incidental charges shall be Contractor's responsibility.

i) Efficient workmen to be engaged by the Contractor.

j) The Contractor's representative should report to Engineer-in-charge on all working days at 7.00 A.M. and 3.00 P.M. for instructions.

k) Materials if rejected should be removed from site within 48 (forty- eight) hours of rejection, failing which the Company reserves the right to get the rejected materials removed at the risk and cost of the Contractor.

l) The Company reserves the right to get the part or whole work complete at the risk and cost of the Contractor if he fails to complete the work within the stipulated time without any valid reason. The Company's decision shall be final and binding on the Contractor.

m) The Contractor must complete all statutory formalities within 7(seven) days of issuance of LOI.

n) Water that may accumulate on the site during progress of the works or in trenches and excavations from other than accepted risks shall be removed from the site to entire satisfaction of the Engineer-in-charge and at the Contractor's expense.

- o) The Contractor shall be in a position to execute 2(two) locations simultaneously.
- p) If required, the Contractor shall have to work in two shifts for which no extra payment will be admissible to him/them.
- q) If needed water and electricity will have to be arranged by the Contractor at his own cost.
- r) The Contractor and his workmen are to strictly observe the safety precautionary rules as per Mines Act (Latest edition) while executing the work.
- s) The Contractor shall have to provide temporary latrine facilities in the entire work site for use of their workmen during progress of work.
- t) The contractor himself (the signatory of the contract) must visit the site at least twice in a week as fixed for taking necessary instruction from the Engineer-in charge.
- u) The program of works to be submitted in the form of Bar Chart within 3 days of receipt of work order.
- v) The Contract cost is excluding P.F. & GST. Wage component of the Contract cost is **20.67%**.

21. SPECIAL INSTRUCTION

The contractor must quote considering the prevailing minimum Labour wage rate for each day of work.

22. GOODS AND SERVICES TAX (GST) CLAUSES UNDER GCC

22.1 GENERAL REMARKS ON TAXES & DUTIES:

In view of **GST** Implementation from 1st July 2017, all taxes and duties including Excise Duty, CST/VAT, Service tax, Entry Tax and other indirect taxes and duties have been submerged in **GST**. Accordingly reference of Excise Duty, Service Tax, VAT, Sales Tax, Entry Tax or any other form of indirect tax except of **GST** mentioned in the bidding document shall be ignored.

22.2 Bidders are required to submit copy of the GST Registration Certificate while submitting the bids wherever **GST** (CGST & SGST/UTGST or IGST) is applicable.

22.3 "**GST**" shall mean Goods and Services Tax charged on the supply of material(s) and services. The term "**GST**" shall be construed to include the Integrated Goods and Services Tax (hereinafter referred to as "IGST") or Central Goods and Services Tax (hereinafter referred to as "CGST") or State Goods and Services Tax (hereinafter referred to as "SGST") or Union Territory Goods and Services Tax (hereinafter referred to as "UTGST") depending upon the import / interstate or intrastate supplies, as the case may be. It shall also mean GST compensation Cess, if applicable.

22.4 Quoted price/rate(s) should be inclusive of all taxes and duties, except **GST (i.e. IGST or CGST and SGST/UTGST applicable in case of interstate supply or intra state supply respectively and cess on GST if applicable) on the final service**. Please note that the responsibility of payment of GST (CGST & SGST or IGST or UTGST) lies with the Supplier of Goods /Services (Service Provider) only. Supplier of Goods / Services (Service Provider) providing taxable service shall issue an Invoice/ Bill, as the case may be as per rules/ regulation of **GST**. Further, returns and details required to be filed under GST laws & rules should be timely filed by Supplier of Goods / Services (Service Provider) with requisite details.

22.5 Where OIL is entitled to avail the input tax credit of GST:

OIL will reimburse the **GST** to the Supplier of Goods / Services (Service Provider) at actuals against submission of Invoices as per format specified in rules/ regulation of GST to enable OIL to claim input tax credit of **GST** paid. In case of any variation in the executed quantities, the amount on which the **GST** is applicable shall be modified in same proportion. Returns and details required to be filed under GST laws & rules should be timely filed by supplier with requisite details.

22.6 Where OIL is not entitled to avail/take the full input tax credit of GST:

OIL will reimburse **GST** to the Supplier of Goods / Services (Service Provider) at actuals against submission of Invoices as per format specified in rules/ regulation of **GST**..

- 22.7** Payments to Service Provider for claiming **GST** amount will be made provided the above formalities are fulfilled. Further, OIL may seek copies of challan and certificate from Chartered Accountant for deposit of **GST** collected from OIL.
- 22.8** Contractor/vendor shall be required to issue tax invoice in accordance with GST Act and/or Rules so that input credit can be availed by OIL. In the event that the contractor / vendor fails to provide the invoice in the form and manner prescribed under the GST Act read with GST Invoicing Rules thereunder, OIL shall not be liable to make any payment on account of **GST** against such invoice.
- 22.9** **GST** shall be paid against receipt of tax invoice and proof of payment of **GST** to government. In case of non-receipt of tax invoice or non-payment of **GST** by the contractor/vendor, OIL shall withhold the payment of **GST**.
- 22.10** **GST** payable under reverse charge mechanism for specified services or goods under GST act or rules, if any, shall not be paid to the contractor/vendor but will be directly deposited to the government by OIL.
- 22.11** Where OIL has the obligation to discharge **GST** liability under reverse charge mechanism and OIL has paid or is /liable to pay **GST** to the Government on which interest or penalties becomes payable as per GST laws for any reason which is not attributable to OIL or ITC with respect to such payments is not available to OIL for any reason which is not attributable to OIL, then OIL shall be entitled to deduct/ setoff / recover such amounts against any amounts paid or payable by OIL to Contractor / Supplier.
- 22.12** Notwithstanding anything contained anywhere in the Agreement, in the event that the input tax credit of the **GST** charged by the Contractor / Vendor is denied by the tax authorities to OIL for reasons attributable to Contractor / Vendor, OIL shall be entitled to recover such amount from the Contractor / Vendor by way of adjustment from the next invoice. In addition to the amount of **GST**, OIL shall also be entitled to recover interest at the rate prescribed under GST Act and penalty, in case any penalty is imposed by the tax authorities on OIL.
- 22.13** TDS under GST, if applicable, shall be deducted from contractor's/vendor's bill at applicable rate and a certificate as per rules for tax so deducted shall be provided to the contractor/vendor.
- 22.14** The Contractor will be under obligation for charging correct rate of tax as prescribed under the respective tax laws. Further the Contractor shall avail and pass on benefits of all exemptions/concessions available under tax laws. Any error of interpretation of applicability of taxes/ duties by the contractor shall be to contractor's account.
- 22.15** Further, it is the responsibility of the bidders to make all possible efforts to make their accounting / IT system GST compliant in order to ensure availability of Input Tax Credit (ITC) to Oil India Ltd.
- 22.16** Beyond the contract period, in case OIL is not entitled for input tax credit of **GST**, then any increase in the rate of **GST** beyond the contractual delivery period (in case the delay is attributable to the service provider), shall be to Service provider's account whereas any decrease in the rate of **GST** shall be passed on to the OIL.

Beyond the contract period, in case OIL is entitled for input tax credit of **GST**, then statutory variation in applicable **GST** on supply and on incidental services, shall be to OIL's account.

Claim for payment of **GST**/ Statutory variation, should be raised within two [02] months from the date of issue of 'Government Notification' for payment of differential (in %) **GST**, otherwise claim in respect of above shall not be entertained for payment of arrears.

- 22.17** The contractor will be liable to ensure to have registered with the respective tax authorities, wherever applicable, and to submit self-attested copy of such registration certificate(s) and the

Contractor will be responsible for procurement of material in its own registration (GSTIN) and also to issue its own Road Permit/ E-way Bill, if applicable etc.

22.18 Documentation requirement for GST

The vendor will be under the obligation for invoicing correct tax rate of tax/duties as prescribed under the GST law to OIL, and pass on the benefits, if any, after availing input tax credit.

Any invoice issued shall contain the following particulars

- a) Name, address and GSTIN of the supplier;
 - b) Serial number of the invoice;
 - c) Date of issue;
 - d) Name, address and GSTIN or UIN, if registered of the recipient;
 - e) Name and address of the recipient and the address of the delivery, along with the State and its code,
 - f) HSN code of goods or Accounting Code of services[SAC];
 - g) Description of goods or services;
 - h) Quantity in case of goods and unit or Unique Quantity Code thereof;
 - i) Total value of supply of goods or services or both;
 - j) Taxable value of supply of goods or services or both taking into discount or abatement if any;
 - k) Rate of tax (IGST,CGST, SGST/ UTGST, cess);
 - l) Amount of tax charged in respect of taxable goods or services (IGST,CGST, SGST/UTGST, cess);
 - m) Place of supply along with the name of State, in case of supply in the course of interstate trade or commerce;
 - n) Address of the delivery where the same is different from the place of supply and
 - o) Signature or digital signature of the supplier or his authorised representative.
- GST invoice shall be prepared in triplicate, in case of supply of goods, in the following manner
- i. The original copy being marked as ORIGINAL FOR RECIPIENT;
 - ii. The duplicate copy being marked as DUPLICATE FOR TRANSPORTER and
 - iii. The triplicate copy being marked as TRIPLICATE FOR SUPPLIER.

22.19 ANTI-PROFITEERING CLAUSE

In case the GST rating of vendor on the GST portal / Govt. official website is negative / black listed, then the bids may be rejected by OIL. Further, in case rating of bidder is negative / black listed after award of work for supply of goods / services, then OIL shall not be obligated or liable to pay or reimburse GST to such vendor and shall also be entitled to deduct / recover such GST along with all penalties / interest, if any, incurred by OIL.

22.20 OIL will prefer to deal with registered bidder under GST. Therefore, bidders are requested to get themselves registered under GST, if not registered yet.

23. ARBITRATION:

Any dispute under this contract will be settled through Arbitration as per Indian Arbitration and Conciliation Act, 1996.

Place of Arbitration: Duliajan, Dibrugarh, Assam.

24. FORCE MAJEURE:

Force Majeure (exemption) Clause of the International Chamber of Commerce (ICC Publication No. 421) is hereby incorporated in this contract.

25. I.B. VERIFICATION REPORT AND SECURITY REVIEW:

Contractor will be required to submit the verification report to ascertain character and antecedents from the Civil Administration towards the persons engaged under this contract to the Head of the user Department before engagement.

26. In case of any doubt or dispute as to the interpretation of any clause herein contained, the decision of the Company's Engineer shall be final and binding on the contractor.

27. SET OFF CLAUSE:

"Any sum of money due and payable to the contractor (including Security Deposit refundable to them) under this or any other contract may be appropriated by Oil India Limited and set off against any claim

of Oil India Limited (or such other person or persons contracting through Oil India Limited) for payment of a sum of money arising out of this contract or under any other contract made by the contractor with Oil India Limited (or such other person or persons contracting through Oil India Limited)."

28. FURNISHING FRAUDULENT INFORMATION/DOCUMENT:

If it is found that a Bidder/Contractor has furnished fraudulent document/information, the Bid Security/ Performance Security shall be forfeited and the party shall be debarred as per the OIL's Banning Policy dated 6th Jan 2017 available at OIL's website.

29. LIQUIDATED DAMAGES FOR DELAY IN MOBILISATION AND/ OR COMPLETION OF WORKS AND SERVICES

In normal case of works /service contracts, liquidated damages will be applicable @ 0.5% of the contract value per week or part thereof, for delay in contract mobilization /completion date subject to a maximum ceiling of 7.5% of contract value .

IN WITNESS whereof the parties hereunto set their hands seals the day and year first written above:-

SIGNED & DELIVERED FOR AND
ON BEHALF OF

(Signature of Contractor or his legal Attorney)

By the hand of

It's Partner/Legal Attorney

(Full Name of Signatory)

(Seal of Contractor's Firm)

And in presence of

Date: _____

(Signature of witness)

(Full Name of Signatory)

Address:

(Signature of Acceptor)

SIGNED & DELIVERED FOR & ON
BEHALF OF OIL INDIA LIMITED

Designation _____

Date_____

OIL INDIA LIMITED
(A Govt. of India Enterprise)
Duliajan, Assam
WORKS CONTRACT

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
	Group A SEC-A				
10	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer-in - charge. 1:3:6 or richer mix	50.64	M3	INR	978.56
20	Demolishing R.C.C. work manually / by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge.	11.06	M3	INR	1427.59
30	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to municipal dumping ground beyond 50 m initial lead, for all leads including all lifts involved.	100	M3	INR	114.50
40	Demolishing brick work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge. In cement mortar	81.68	M3	INR	827.22
50	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead: Of area 3 sq. metres and below	72	EA	INR	166.37
60	Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead: Of sectional area 40 square centimetres and above.	7.5	M3	INR	1843.16
70	Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in: Channels, angles, tees and flats	10000	KG	INR	1.01
80	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead.	10000	KG	INR	2.50
90	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. For thickness of tiles 10mm to 25mm	176.51	M2	INR	33.25
100	Dismantling roofing including ridges, hips valleys and gutters etc., and stacking the material within 50 metres lead of: G.S. Sheet	1153.34	M2	INR	67.72
110	Dismantling cement asbestos or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 metres lead.	520.56	M2	INR	23.39
120	Dismantling aluminum / Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material within 50 meters lead as directed by Engineer-in-Charge.	211.83	M2	INR	23.40
130	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. All kinds of soil (Refer CPWD SOR 2016, Item No. 2.6.1)	711.36	M3	INR	122.56
140	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m. (Refer CPWD SOR 2016, Item No. 2.25)	569.09	M3	INR	124.48
150	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete. (Refer CPWD SOR 2016, Item No. 2.27)	286.5	M3	INR	1017.07
160	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. Beyond 30 cm girth upto and including 60 cm girth (Refer	10	EA	INR	215.02

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
	CPWD SOR 2016, Item No. 2.33.1)				
170	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos/ Lindane emulsifiable concentrate of 20% (Refer CPWD SOR 2016, Item No. 2.34.1)	282.21	L	INR	176.66
180	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) : Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc.: With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration (Refer CPWD SOR 2016, Item No. 2.35.2.1)	93.8	M	INR	23.64
190	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) : Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 : 2 (1 cement : 2 Coarse sand) to match the existing floor: With Chlorpyriphos/Lindane E.C. 20% with 1% concentration (Refer CPWD SOR 2016, Item No. 2.35.3.1)	485.1	M2	INR	133.49
200	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth. (Refer CPWD SOR 2016, Item No. 4.17)	74.85	M2	INR	497.70
210	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III): 4 graded stone aggregate 12.5mm nominal size) (Refer CPWD SOR 2016, Item No. 4.10)	63.78	M2	INR	234.92
220	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size). (Refer CPWD SOR 2016, Item No. 4.1.5)	21.56	M3	INR	3944.02
230	Providing and Laying Brick Flat Soling (75mm thick) including grading the base and spreading 25mm thick sand bed at bottom and grouting soling with cement mortar (prop. 1:3) and carrying all materials from a distance of upto 30.00m.	559.95	M2	INR	559.45
240	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size) (Refer CPWD SOR 2016, Item No. 4.1.3)	36.15	M3	INR	3814.54
250	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level : 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size) (Refer CPWD SOR 2016, Item No. 5.1.2)	116.18	M3	INR	3972.25
260	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement : 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) : 3 graded stone aggregate 20 mm nominal size). (Refer CPWD SOR 2016, Item No. 5.2.2)	68.69	M3	INR	4886.37
270	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size). Refer CPWD SOR 2016, Item No. 5.3)	394.55	M3	INR	5133.19

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
280	Centering and shuttering including strutting, propping etc. and removal of form work for : Foundations, footings, bases for columns (Refer CPWD SOR 2016, Item No. 4.3.1)	573.11	M2	INR	196.52
290	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Suspended floors, roofs, landings, balconies and access platform (Refer CPWD SOR 2016, Item No. 5.9.3)	1149.36	M2	INR	441.54
300	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Lintels, beams, plinth beams, girders, bressumers and cantilevers (Refer CPWD SOR 2016, Item No. 5.9.5)	955.89	M2	INR	355.40
310	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Columns, Pillars, Piers, Abutments, Posts and Struts (Refer CPWD SOR 2016, Item No. 5.9.6)	642.71	M2	INR	483.68
320	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Weather shade, Chajjas, corbels etc., including edges (Refer CPWD SOR 2016, Item No. 5.9.19)	88.92	M2	INR	528.48
330	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Stairs, (excluding landings) except spiral-staircases (Refer CPWD SOR 2016, Item No. 5.9.7)	124.05	M2	INR	428.87
340	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Edges of slabs and breaks in floors and walls Under 20 cm wide (Refer CPWD SOR 2016, Item No. 5.9.16.1)	249.05	M	INR	123.01
350	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) (Refer CPWD SOR 2016, Item No. 6.1.1)	57.4	M3	INR	7055.46
360	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) (Refer CPWD SOR 2016, Item No. 6.4.1)	255.44	M3	INR	7892.95
370	12 mm cement plaster of mix : 1:4 (1 cement: 4 fine sand) (Refer CPWD SOR 2016, Item No. 13.1.1)	2237.12	M2	INR	142.40
380	6 mm cement plaster of mix : 1:3 (1 cement : 3 fine sand) (Refer CPWD SOR 2016, Item No. 13.16.1)	2667.99	M2	INR	124.54
390	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade: New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm) (Refer CPWD SOR 2016, Item No. 13.47.1)	1100.11	M2	INR	98.14
400	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work (Refer CPWD SOR 2016, Item No. 13.60.1)	2422.36	M2	INR	85.99
410	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre (Refer CPWD SOR 2016, Item No. 13.85.3)	2422.36	M2	INR	39.11
420	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete. (Refer CPWD SOR 2016, Item No. 13.80)	3522.48	M2	INR	90.35
430	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture (Refer CPWD SOR 2016, Item No. 13.62.1)	56.28	M2	INR	115.12

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
440	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). Kiln seasoned and chemically treated hollock wood. (Refer CPWD SOR 2016, Item No. 9.1.3)	1.16	M3	INR	54644.53
450	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws. (Refer CPWD SOR 2016, Item No. 9.20.2)	33.94	M2	INR	2288.01
460	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters: 30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws. (Refer CPWD SOR 2016, Item No. 9.21.2)	19.12	M2	INR	1515.61
470	French spirit polishing: Two or more coats on new works including a coat of wood filler (Refer CPWD SOR 2016, Item No. 13.68.1).	67.88	M2	INR	231.85
480	Applying priming coat: With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood) (Refer CPWD SOR 2016, Item No. 13.50.1)	38	M2	INR	35.88
490	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications: Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture (Refer CPWD SOR 2016, Item No. 13.48.2)	76.24	M2	INR	90.36
500	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 600x600 mm. (Refer CPWD SOR 2016, Item No. 11.41.2).	857.22	M2	INR	1008.79
510	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigment etc., complete. (Refer CPWD SOR 2016, Item No. 11.37).	57.34	M2	INR	599.30
520	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete. (Refer CPWD SOR 2016, Item No. 11.36).	338.5	M2	INR	670.42
530	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joint with white cement & matching pigments etc. complete. Size of Tile 600x600 mm. (Refer CPWD SOR 2016, Item No. 11.46.2).	49.76	M2	INR	1041.30

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
540	Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete. (Refer CPWD SOR 2016, Item No. 17.78)	5	EA	INR	9513.59
550	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. (Refer CPWD SOR 2016, Item No. 17.1.1).	1	EA	INR	3594.35
560	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm or 340x410x265 mm sizes respectively. (Refer CPWD SOR 2016, Item No. 17.23)	8	EA	INR	946.10
570	Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet : 250x125x25 mm (Refer CPWD SOR 2016, Item No. 17.17.2)	8	PAA	INR	166.92
580	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps (Refer CPWD SOR 2016, Item No. 17.7.1)	9	EA	INR	2291.29
590	Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings. (Refer CPWD SOR 2016, Item No. 17.8).	9	EA	INR	926.51
600	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete. (Refer CPWD SOR 2016, Item No. 17.31)	2	EA	INR	817.99
610	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing : Rectangular shape 1500x450 mm (Refer CPWD SOR 2016, Item No. 17.32.4)	3	EA	INR	1292.14
620	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminum angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete. (Refer CPWD SOR 2016, Item No. 17.33)	9	EA	INR	571.31
630	Providing, fitting and fixing CP towel rail complete as directed and specified. Jaquar make -Continental 600mm (Cat. No. ACN-1111N) (Refer APWD 13-14, Item No. 1.24.(a) (ii))	7	EA	INR	1202.52
640	Providing fitting fixing Hand faucet for WC, make jaquar (code-ALD:573) or equivalent with 450mm long braided hoses, make jaquar material code (ALD-8058) or equivalent as directed and specified. Refer Contract no. 6107899, line item no 98 with 8% escalation)	6	EA	INR	2179.64
650	Providing and fixing toilet paper holder : C.P. Brass (Refer CPWD SOR 2016, Item No. 17.34.1)	6	EA	INR	381.77
660	Providing, fitting and fixing CP grating to the floors complete as specified and directed 125 dia. (Refer APWD 13-14, Item No. 1.42 (ii))	10	EA	INR	244.93
670	Providing, fitting and fixing CP soap tray / soap dish complete as directed and specified. Jaquar make - Continental (Cat.No.ACN-1331N) (Refer APWD 13-14, Item No. 1.22. (i) (a))	13	EA	INR	655.52
680	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms. 15 mm nominal bore (Refer CPWD SOR 2016, Item No. 18.51.1)	6	EA	INR	467.92
690	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS: 8931. 15 mm nominal bore (Refer CPWD SOR 2016, Item No. 18.52.1)	23	EA	INR	518.63

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
700	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall : 20 mm dia nominal bore (Refer CPWD SOR 2016, Item No. 18.11.2)	59.43	M	INR	317.93
710	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall : 15 mm dia nominal bore (Refer CPWD SOR 2016, Item No. 18.11.1)	58.5	M	INR	288.80
720	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. 25 mm dia nominal bore (Refer CPWD SOR 2016, Item No. 18.12.3)	100	M	INR	199.47
730	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete : 25 to 40 mm nominal bore (Refer CPWD SOR 2016, Item No. 18.13.1)	10	EA	INR	428.21
740	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) : 15 mm nominal bore (refer CPWD SOR 2016, Item No. 18.46.1)	10	EA	INR	158.26
750	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) : 20mm nominal bore (Refer CPWD SOR 2016, Item No. 18.46.2)	10	EA	INR	180.33
760	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) : 25 mm nominal bore (Refer CPWD SOR 2016, Item No.18.46.3)	10	EA	INR	213.43
770	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, (i) Single socketed pipes. 75 mm diameter (Refer CPWD SOR 2016, Item No.12.41.1)	50	M	INR	147.43
780	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, (i) Single socketed pipes. 110 mm diameter (Refer CPWD SOR 2016, Item No. 12.41.2)	100	M	INR	231.99
790	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Coupler 75 mm (Refer CPWD SOR 2016, Item No. 12.42.1.1)	10	EA	INR	61.69
800	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Coupler 110 mm (Refer CPWD SOR 2016, Item No. 12.42.1.2)	10	EA	INR	97.53
810	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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 pushfit Coupler 75 mm (Refer CPWD SOR 2016, Item No. 12.42.2.1)	10	EA	INR	61.69
820	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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 pushfit Coupler 110 mm (Refer CPWD SOR 2016, Item No. 12.42.2.2)	10	EA	INR	89.80
830	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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 tee with door 75x75x75 mm (Refer CPWD SOR 2016, Item No. 12.42.3.1)	10	EA	INR	115.43

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
840	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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 tee with door 110x110x110 mm (Refer CPWD SOR 2016, Item No. 12.42.3.2)	10	EA	INR	172.46
850	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Bend 87.5° 75 mm bend (Refer CPWD SOR 2016, Item No. 12.42.5.1)	10	EA	INR	72.73
860	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Bend 87.5° 110 mm bend (Refer CPWD SOR 2016, Item No. 12.42.5.2)	10	EA	INR	107.45
870	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Shoe (Plain) 75 mm Shoe (Refer CPWD SOR 2016, Item No. 12.42.6.1)	10	EA	INR	62.80
880	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Shoe (Plain) 110mm Shoe (Refer CPWD SOR 2016, Item No. 12.42.6.2)	10	EA	INR	93.11
890	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 spacing 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 on 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 : Fully Perforated Gypsum Plaster Board of size 1200 x 2400x12.5 mm having approx. 15 % perforated area with perforation size and pattern as approved by the Engineer-in-charge and as per manufacturer's specification, with all 4 side tapered and backed by acoustical tissue with NRC value not less than 0.60 (Refer CPWD SOR 2016, Item No. 12.45.4)	971.02	M2	INR	1120.00

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
900	Providing and fixing 2nd class teak wood plain lining tongued and grooved, including wooden plugs complete with necessary screws and priming coat on unexposed surface. 25 mm thick (Refer CPWD SOR 2016, Item No. 9.34.2)	321.95	M2	INR	2890.88
910	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate (Refer CPWD SOR 2016, Item No. 11.3.1)	554.32	M2	INR	273.45
920	Providing and fixing stainless steel (Grade 304) railing 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, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.). (Refer CPWD SOR 2016, Item No. 10.28)	993	KG	INR	455.03
930	Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12- 6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthened clear float glass 6mm thick, spacer tube 12mm wide, dessicants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor. (Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.26.2) For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm. (i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement. (Refer CPWD SOR 2016, Item No. 25.3)	99.43	M2	INR	3544.18

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
940	Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as per IS 875 (Part-III). The Suspended System held with Spider Fittings of SS-316 Grade Steel of approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS- 316 Grade Stainless steel Spider & bolt assembly with laminated glass fins 21 mm thick. The Glass fins and glass panel assembly shall be connected to Slab/beams by means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of approved make, Teflon/ nylon bushes and separators to prevent bi-metallic contacts, all complete to perform as per specification and approved drawings. The complete system to be designed to accommodate thermal expansion & seismic movements etc. The joints between glass panels (6 to 8 mm) and gaps at the perimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water proof & dust proof. The rate shall include all design, Engineering and shop drawing including approval from structural designer, labour, T&P, scaffolding, other incidental charges including wastage, enabling temporary services all fitting fixers nut bolts, washer, Buffer plates, fastener, anchors, SS channel laminated glass etc.all complete. For the purpose of payment, actual elevation area of Glazing including thickness of joints and the portion of Glass panel inside the SS channel shall be measured. (Refer CPWD SOR 2016, Item No. 25.8)	11.452	M2	INR	6582.12
950	Providing and supplying Spandrel Glass Panels comprising of 6 mm thick heat strengthened monolithic float glass of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade so as to match the colour and shade of the IGUs in the vision panels etc. ,all complete for the required performances as specified, as per the Architectural drawings, as per the approved shop drawings, as specified, and as directed by the Engineer- in-Charge. For payment, only the actual area of glass on face # 1 of the glass panels (but excluding the area of grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm. (Payment for fixing of Spandrel Glass Panels in the curtain glazing is included in cost of relevant Item*).“(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 K etc. . The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement. (Refer CPWD SOR 2016, Item No. 25.6)	58.8	M2	INR	2658.77
960	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately). (Refer CPWD SOR 2016, Item No. 21.18)	27.027	M2	INR	4442.96
970	"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) : 21.1.1 For fixed portion 21.1.1.1 Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15) (Refer CPWD SOR 2016,	500	KG	INR	346.32

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
	Item No. 21.1.1.1)				
980	Marble stone flooring with 18 mm thick marble stone, as per sample of marble approved by Engineer-in-charge, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete with : Raj Nagar plain. (Refer CPWD SOR 2016, Item No. 11.23.2)	120.56	M2	INR	1390.01
990	Providing & fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws etc. complete. Single rubber stopper. (Refer CPWD SOR 2016, Item No. 9.101.2)	30	NO	INR	36.57
1000	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. (Refer CPWD SOR 2016, Item No. 9.84)	30	NO	INR	378.27
1010	Providing & fixing chromium plated brass 100mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality). (Refer CPWD SOR 2016, Item No. 9.88)	30	NO	INR	669.87
1020	Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately). Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Two track two panels sliding window made of (small series) frame 52 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window upto 1.75 sqm). (Refer CPWD SOR 2016, Item No. 9.147D.1)	69	M2	INR	5592.56

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
1030	Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately). Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm). (Refer CPWD SOR 2016, Item No. 9.147D.2)	10.5	M2	INR	7384.37
1040	Providing and fixing factory made uPVC white colour sliding glazed window above 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads, uPVC extruded interlocks and uPVC extruded Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle on one side of extreme panel along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) touch lock with hook (if required for wire mesh panel), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately). Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Two track four panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 4.00 sqm upto 8.00 sqm). (Refer CPWD SOR 2016, Item No. 9.147E.2)	12.6	M2	INR	4912.74

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
1050	Providing and fixing factory made uPVC white colour fixed glazed windows/ventilators comprising of uPVC multi-chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately). Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Fixed window / ventilator made of (small series) frame 47 x 50 mm & mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area upto 0.75 sqm.) (Refer CPWD SOR 2016, Item No. 9.147B.1)	11.94	M2	INR	5394.15
1060	Providing and fixing factory made uPVC white colour casement/casement cum fixed glazed windows comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, stainless steel (SS 304 grade) friction hinges, zinc alloy (white powder coated) casement handles, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately) Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Casement window single panel with S.S. friction hinges (300 x 19 x 1.9 mm), made of (small series) frame 47 x 50 mm & sash 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glass pane glazing bead of appropriate dimension. (Area of window upto 0.75 sqm.) (Refer CPWD SOR 2016, Item No. 9.147A.1)	0.75	M2	INR	7777.18
1070	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 4.0 mm thickness. (Refer CPWD SOR 2016, Item No. 21.3.1)	104.79	M2	INR	728.94
1080	Providing and fixing plain frosted glass of ordinary glazing quality bedded in putty and fixed with/without wooden bidding including necessary cutting and glass to be required sized (payment for wooden bead shall be made separately): 5 mm thick. (Refer APWD SOR 13-14, Item No. 16.2)	85.06	M2	INR	815.71
1090	Extra for providing frosted glass panes 4 mm thick instead of ordinary float glass panes 4 mm thick in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured). (Refer CPWD SOR 2016, Item No. 9.12)	107.16	M2	INR	70.62

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
1100	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment). (Refer CPWD SOR 2016, Item No. 21.17)	104.79	KG	INR	397.40
1110	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete. (Refer CPWD SOR 2016, Item No. 10.17)	57	EA	INR	110.81
1120	Erecting asbestos sheet roof or wall on plane apex with all accessories complete (FLARE wall/ sound barrier wall).	202.5	M2	INR	51.85
1130	Fixing second hand pipe post 75mm to 100mm dia. in correct plumb with cement concrete in prop. (1:3:6) base of 30cm x 30cm x 45cm including earth cutting to required size and curing but excluding shuttering work. (C.C. work to be paid separately).	20	EA	INR	230.03
1140	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete:	1000	KG	INR	21.19
1150	Providing and fixing 12 mm thick frosted frameless toughened glass for office spaces with Godrej fittings all complete as per direction of Engineer-in-charge (extra for frosted glass to be paid separately).	87.92	M2	INR	4832.62
1160	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more (Primary Producer) (Refer CPWD SOR 2016, Item No. 5.22.6)	64674.84	KG	INR	62.25
Group A SEC-B					
10	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. In all kinds of soil.	65.25	M3	INR	162.49
20	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	65.25	M3	INR	124.48
30	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m. All kinds of soil	53.46	M2	INR	13.68
40	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size). (Refer CPWD SOR 2016, Item No. 4.1.5)	5.19	M3	INR	3944.02
50	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement : 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) : 3 graded stone aggregate 20 mm nominal size). (Refer CPWD SOR 2016, Item No. 5.2.2)	2.07	M3	INR	4886.37
60	Centering and shuttering including strutting, propping etc. and removal of form for all heights: Columns, Pillars, Piers, Abutments, Posts and Struts. (Refer CPWD SOR 2016, Item No. 5.9.6)	5.62	M2	INR	483.68

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
70	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more. (Refer CPWD SOR 2016, Item No. 5.22.6)	156.3	KG	INR	62.25
80	12 mm cement plaster of mix : 1:4 (1 cement: 4 fine sand) (Refer CPWD SOR 2016, Item No. 13.1.1)	45.66	M2	INR	142.40
90	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) (Refer CPWD SOR 2016, Item No. 6.4.1)	9.78	M3	INR	7892.95
Group B SEC-A					
10	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 3 nos. Single core 1.5 sq.mm size FRLS PVC insulated copper cable in recessed using medium grade ISI approved 25mm size PVC conduit & accessories, suitable GI box as required.(Colour codes – Phase –R/Y/B; Neutral –Black & Earth- Green)). Concealed Point wiring includes laying of PVC conduit in the roof/Wall also.	200	EA	INR	1130.78
20	Wiring for light plug point with 3 nos Single core 1.5 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 25mm size PVC conduit & accessories, etc as required.(Colour codes – Phase –R/Y/B; Neutral –Black & Earth- Green)).Concealed wiring includes laying of PVC conduit in the roof/Wall also.	700	M	INR	171.48
30	Wiring for circuit/ sub main from MCB DB to desired Switch Board with 3 nos. Single core 2.5 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 25mm size PVC conduit & accessories, (Colour codes : Phase –R/Y/B; Neutral –Black & Earth- Green)).Concealed circuit wiring includes laying of PVC conduit in the roof/Wall also.	800	M	INR	208.35
40	Wiring for circuit/ sub main/Power wiring from MCB DB to desired Switch Board/power point with 3 nos. Single core 4 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 25mm size PVC Conduit & accessories, (Colour codes : Phase –R/Y/B; Neutral –Black & Earth- Green). Concealed circuit wiring includes laying of PVC conduit in the roof/Wall also.	1000	M	INR	254.93
50	Wiring for circuit/ sub main wiring from Main panel to DB, DB to MCB DB with 3 nos. Single core 10 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 32mm size PVC conduit & accessories, (Colour codes: Phases - R/Y/B; Neutral –Black & 1 Nos. Earth- Green)).Concealed sub main wiring includes laying of PVC conduit in the roof/Wall also.	400	M	INR	542.24
60	Wiring for circuit/ sub main wiring from Main panel to DB, DB to MCB DB with 6 nos. Single core 10 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 32mm size PVC conduit & accessories, (Colour codes: Phases - R/Y/B; Neutral –Black & 1 Nos. Earth- Green)).Concealed sub main wiring includes laying of PVC conduit in the roof/Wall also.	150	M	INR	867.65
70	Supply and Fixing of 3 Module type Switch Board Box shall be made out of steel sheet of min 1.20 mm thickness and complete finished box should be duly pretreated, zinc coated & passivated or made of GI sheet of 1.2mm thickness to accommodate specified number of electrical accessories and suitable for indoor electrical installation with provision for earthing terminal. Modular type Frame Plate with matching Cover Plate suitable for above Switch Board Box suitable to accommodate specified number of electrical accessories. Frame Plate shall be made out of polycarbonate. The configurations for the relevant plate are defined as under: A- Number of Rows: 1. B- Number of openings:3. C- Size of opening.: 1M Internal connection of wire is included in the item.	25	NO	INR	239.31

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
80	Supply and Fixing of 8 Module type Switch Board. Box shall be made out of steel sheet of min 1.20 mm thickness and complete finished box should be duly pretreated, zinc coated & passivated or made of GI sheet of 1.2mm thickness to accommodate specified number of electrical accessories and suitable for indoor electrical installation with provision for earthing terminal. Frame Plate with matching Cover Plate suitable for above Switch Board Box suitable to accommodate specified number of electrical accessories. Frame Plate shall be made out of polycarbonate. The configurations for the relevant plate are defined as under: A- Number of Rows: 1 B- Number of openings:8 C- Size of opening.1M	40	NO	INR	429.10
90	Supplying and fixing 3 module GI box with modular plate and cover in front on recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, non-shuttered type for 250V,50Hz. supply and conforming to IS:1293/ 2005 with amendments No.1,2&3.The dimensions shall be as per annexure 'A of IS: 1293/2005 with amendments No.1,2&3 Note:-Dimensions and withdrawal force values for 2-pin sockets and 5-pin sockets shall be as per IS:1293.	140	NO	INR	377.08
100	Supplying and fixing 3 module GI box with modular plate and cover in front on recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, non-shuttered type for 250V,50Hz. supply and conforming to IS:1293/ 2005 with amendments No.1,2&3.The dimensions shall be as per annexure 'A of IS: 1293/2005 with amendments No.1,2&3 Note:-Dimensions and withdrawal force values for 2-pin sockets and 5-pin sockets shall be as per IS:1293.	50	NO	INR	492.95
110	Supplying and installation of recess type 20A metallic plug/socket DB complete with 20A Plug and Socket and 20 A DP RCBO,30mA sensitivity for AC.	30	NO	INR	5537.93
120	Supply and fixing of 6 A Modular switch in the existing modular boxes.Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007	200	NO	INR	85.27
130	Supply and fixing of Blank Plate	80	NO	INR	59.89
140	Supplying and fixing 3 pin, 5 amp ceiling rose	10	NO	INR	62.10
150	Supply and fixing 1 Module step Fan Regulator 100W.Electronic Fan regulator step type (Capacitor Type) with minimum 4 steps(5 position) flush mounting type to IS:11037/1984(Reaffirm 2005) suitable for electric ceiling fan of voltage 230V, AC,50 Hz having wattage up to 100 Watts Max. The capacitor used shall be of standard make.	50	NO	INR	344.57
160	Supply, Installation, testing and commissioning of 1400 mm sweep ceiling fan without modular step regulator, including wiring the down rods of standard length (upto 30 cm).Fan shall have double bearing with minimum air delivery shall be 230 CMM. Minimum Power input shall be 60 W .	50	NO	INR	2697.91
170	Supply, Installation, testing and commissioning of Exhaust Fan, 300 mm sweep, 900±10% PM heavy duty metallic exhaust fan in the existing pening, including making the hole to suit the size of the above fan, making good the damage, connection, testing, commissioning etc. as required.Minimum power input shall be 50 W.Pre-lubricated double ball bearing for maintenance free running and conforming to IS 2312-1967 with latest amendment.	8	NO	INR	4264.27

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
180	Supply,Installation, testing and commissioning of high performance suspended mounting, LM-79 certified luminaire & LM-80 certified LED with alumimium extruded channel & white powder coating. Fitting shall be with high translucent diffuser & white optics reflector for glare free light distribution with 40 +/-10% w system wattage, system efficacy >85 lm/W.THD <10% and PF is >0.9, with more than 1700 Lumen. Colour temperature shall be in between 5500 to 6500 K. The driver shall be external type and minimum burning hours shall be 40000 Hrs.The fitting shall be complete with all accessories etc., including supplying and fixing ball and socket arrangement, 2 no. down rods of 20 mm dia X 1.6 mm thick steel conduit upto 75 cm length, painting and wiring the down rods and connection with 1.5 sq. mm FR PVC insulated,copper conductor, three core cable and earthing etc. as required.	80	NO	INR	5404.33
190	Supply,Installation, testing and commissioning of surface mounting Powder coated, Aluminum extrusion housing, IP20 Diffused Acrylic glass fitted 4ft LED Batten LM-79 certified luminaire & LM-80 certified LED complete with all mounting accessories. The product should have an even light distribution with system lumen greater than 1700 Lumen with max.20 +/-10% w system wattage. and CCT 6500k, CRI >80 and system efficacy >90 lm/W. Lifetime should be at least 40000 hours.The product should have an Electronic constant current driver with Open & Short circuit protection, reverse polarity protection and surge protection, PF >0.9, THD <10%.	35	NO	INR	1063.17
200	Supply,Installation, testing and commissioning of surface mounting Powder coated, Aluminum extrusion housing, IP20 Diffused Acrylic glass fitted 2ft LED Batten LM-79 certified luminaire & LM-80 certified LED complete with all mounting accessories. The product should have an even light distribution with system lumen greater than 1300 Lumen with max.10 +/-10% w system wattage. and CCT 6500k, CRI >80 and system efficacy >90 lm/W. Lifetime should be at least 40000 hours.The product should have an Electronic constant current driver with Open & Short circuit protection, reverse polarity protection and surge protection, PF >0.9, THD <10%.	10	NO	INR	908.69
210	Supply,Installation, testing and commissioning of recessed type 35 to 38 W LED CRCA powder coated luminaire complete with all mounting accessorioies for fixing in the POP type ceiling including supplying, fixing arrangment and connection with 3x1.5 sq. mm FR PVC insulated,copper conductor, single core cable and earthing etc. as required.Minimum output Lumen shall be 3200 and colour temperature shall be 5500K to 6500K.Driver shall be external. Efficacy shall be more than 90%. Power factor>0.9, THD < 10% , IEC Compliant for safety.	30	NO	INR	6981.30
220	Supply,Installation, testing and commissioning of recessed accent lighting luminaire (downlight) with matt finish reflector complete with green perform LED lamps with all accessories including fixing arrangment in the ceiling, wiring and connection with 1.5 mmsq FRLS single core copper conductor.Minimum lumen out shall be 1200 Lumen,CRI>80%,driver shall be constant current non integrated, Optics High Efficiency diffuser with more than 85% transmittance.	18	NO	INR	2567.60
230	Supply,Installation,Testing & commissioning of 16 WAY SPN MCB DB with double door , single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface , complete with 100 A tinned 12 way copper busbar, 12 way neutral busbar, 12 way earth bar, din bar, detachable gland plate, interconnections, phosphatized and powder painted including earthing etc. as required.DB shall have following as incomer :63 A RCBO, sensitivity 100mA -1 nos.Outgoings are 10 A MCB ,C curve-6 nos,20 A MCB,C curve- 6 nos.Make of RCBO, MCBs and box shall be of same make. All accessories like Lugs/Thimble etc .required for installation shall be supplied by Contractor.	12	NO	INR	11639.63

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
240	Supply,Installation,Testing & commissioning 3 phase 8 way 63A MCB DB: 3 phase 8 way TPN prewired MCB DB with double door of following specification: DB shall be as per IS 8623, Suitable for Flush mounting and surface mounting application with 100 A copper busbar for each phase, with neutral bar, earth bar and cable ties for cable management, fully insulated busbar and neutral bar. DB shall have proper arrangement for door earthing and corner shields for better protection, Pan assembly for ease of installation, masking sheet, reversible doors, with provision for four pole RCBO as incomer and SP MCB as outgoing, supplied with wire set and MCBs. Wires shall be FRLS copper single core cables of sufficient capacity. DB shall have protection against mechanical impact, minimum protection index shall be IK 09 with acrylic door of IEC-62262 and Ingress protection of IP43. Limiting dimensions of DB shall be: front side length with door: 700 mm, breadth: 500 mm and depth 70 mm. Knockouts on the top shall be of following dimensions: 1 no., 32 mm dia; 8 nos., 25 mm dia. Knockouts on bottom shall be of following dimensions: 1 no., 32 mm dia; 8 nos., 25 mm dia. Knockouts on both sides shall be of following dimensions: 1 no. 32 mm dia and 2 nos., 25 mm dia. Part 1:DB shall have 63 A,10kA 100 mA RCBO as incomer as per IS: 12460 with latest ammendments, Part 2. Outgoing distribution in each phase shall consist of 8 nos. of MCB (4 nos. of 10 A and 4 nos. of 20 A MCB), all C curve, 10 KA capacity; total no. of MCBs in DB- 24 nos. All MCBs shall be as per IS/IEC 60947-2. All accessories like Lugs/Thimble etc .required for installation shall be supplied by Contractor.	4	NO	INR	20574.34
250	Supply,Installation,Testing & commissioning 160 A, 8 W, VTPN MCCB DB Supply of 3 Phase, 8 WAY, vertical TPN MCCB DB, as per the following specifications: A. Incoming: a. 160 A Thermal adjustable MCCB: 1 no b. Rating: 4 pole, 160 A, 25kA, 50Hz, 415VAC c. Protection: Thermal and Magnetic Protection B. Outgoing Feeders: a. 63 A TP C curve MCB: 4nos b. 63 A SP C curve MCB: 12 nos c. All outgoing MCBs shall be 'C' curve, 240v AC, 10kA breaking capacity, with DMC housing, suitable for class-II tropicalisation (as per IEC) & approved by ISI or IEC. MCBs shall have integrated label holder, biconnect upper & lower terminals & air channels for low temperature rise. C. Bus bar: 250 A, Tinned Copper D. Constructional details of DB: DB shall be as per IS-8623 with latest amendment. DB shall have external earth terminal & mounting holes. Cable ties & wire leads for wiring incomer MCCB to respective phase & neutral buses shall be supplied and wired with single core 35 sqmm stranded copper cable with tinned copper lugs. Enclosure shall be IP-43& IK-09 with double door. DB shall have detachable cable entry gland plate on top and bottom side for keeping spare length of cables. All wires inside DB shall have ferrules for identification of circuit number. All unused openings shall be fitted with Blanking Plates. The DB shall be provided with 250 amp tinned copper bus bar for phase & neutral. Neutral & Earth bar shall be 8 way each & suitable for termination of wires with pin type cable lugs. All accessories like Gland/Lugs/Thimble etc .required for installation shall be supplied by Contractor.	2	NO	INR	39823.80
260	Supplying and fixing metal box of 200 mm X 250 mm X 100 mm on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.	20	NO	INR	277.30
270	Supplying and fixing metal box of 150 mm X 150 mm X 60 mm on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.	60	NO	INR	180.37
280	Supplying and fixing of Mild steel hexagonal/Round fan box with 12mm Rod ,18G in the fan position.	50	NO	INR	203.11
290	Supply and fixing of Earthing with G.I. earth pipe 3 metre long, 100 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.	2	EA	INR	5106.77

Sl. No.	Description of Work	Qty	UOM	Curr	Rate
300	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required.(Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	30	M	INR	71.49
310	Supply and fixing of 3.5x70 mmsq PVCA 1100v grade, Heavy duty, PVC insulated, PVC sheathed, galvanised steel wire armoured cable with stranded, Aluminium conductor. Cable should be fixed with proper size of saddles at suitable interval. All core insulations shall be colour coded with red, yellow ,blue and black colours. All insulated cores laid up together, covered with inner sheath of extruded black PVC compound, galvanised steel wire armour and black PVC outer sheath. Sufficient filler shall be used to give overall circular shape to the cable. The cable shall be approved by IS: 1554 with latest amendments. PVC insulation should be as per IS-5831. Armour should be as per IS-3975. Conductor should be as per IS-8130. Manufacturer's name, cable size, voltage grade, ISI mark should be marked on the cable outer sheath in permanent manner at regular interval. Sequential marking should be provided on the cable outer sheath at every one meter length for measurement during use.	200	M	INR	342.95
320	Supply and fixing of 1x25 mmsq PVC 1100v grade, Heavy duty, PVC insulated, Black PVC sheathed cable with stranded, Aluminium conductor. The cable shall be approved by IS: 1554 with latest amendments. PVC insulation should be as per IS-5831. Manufacturer's name, cable size, voltage grade, ISI mark should be marked on the cable outer sheath in permanent manner at regular interval. Sequential marking should be provided on the cable outer sheath at every one meter length for measurement during use.	400	M	INR	40.85
330	Supply, Installation, Testing and Commissioning of LT panel Specification of floor mounted MAIN INCOMER PANEL: Incomer panel shall be cubicle type, vermin proof, made with CRCA sheet with following specification: 2.0 PANEL COMPARTMENTS / SECTIONS: A) INCOMER SECTION: 2 (two) nos.400 Amps, Four Pole, Moulded Case Circuit Breaker: MCCB shall have thermal magnetic release of Breaking capacity minimum 36 kA with a rotary handle operating mechanism, with spreader links. One number Digital multifunction Panel meter to measure the electrical quantity voltage,current, power, frequency, energy consumption and power factor shall be provided. Meter shall be of minimum size 96 mm x96 mm x 65mm. Meter shall have a provision for recording cumulative energy. B) BUS CHAMBER: The bus chamber shall be sheet steel clad having front bolted covers and shall consist of 1 set TP & N electrolytic grade, high conductivity electrolytic E 91 E grade aluminium Bus Bars, conforming to IS: 5082. Current rating of bus bar sections shall be 800 Amps suitable for 415 V AC, 50 Hz system. Neutral bar shall be of same size as phase bus. The bus-bar shall be insulated with heat shrinkable PVC sleeves and shall be supported at required intervals with non- hygroscopic, non-deteriorating, and non inflammable SMC / FRP supports having adequate mechanical strength and a high tracking resistance, to withstand short circuit fault levels up to 50 kA for 1 sec. All risers and connections from bus bar shall be done with same material as the main bus bars of current rating as per rating of individual cubicle switch. C) OUT GOING SECTION i) 01 (one) No 250 Amps, Four Pole, Moulded Case Circuit Breaker, minimum 25 kA with a rotary handle operating mechanism. ii) 07(seven) nos 160 Amps, four pole, MCCB, 25 KA with rotary handle D) CABLE CHAMBER / CABLE ALLEY: Suitable cable alleys shall be provided in between sections of the panel to drive the cables. Supports as required shall be provided along the cable alleys for supporting the cables / wires. All accessories like Gland/Lugs/Thimble etc .required for installation shall be supplied by Contractor.	1	NO	INR	444488.28

- Bidder must include all liabilities including statutory liabilities in their quoted rates (excluding PF and GST).

Note: The Company's Internal Estimated Rates, as indicated in Part-II, are inclusive of all overheads, taxes, duties, levies etc. except P.F. & GST.

**OIL INDIA LIMITED
(A Govt. of India Enterprise)
DULIAJAN (ASSAM)
WORKS CONTRACT**

PARTICULAR SPECIFICATIONS AND INSTRUCTIONS:

DESCRIPTION OF WORK/SERVICES: Construction of New Office Building in Civil Engineering Department at Duliajan including internal electrification and supply of all materials except Cement.

I. ANNEXURE A: SCOPE OF CIVIL WORK**1.0 GENERAL:**

All materials used in the work shall conform to the latest revision of the relevant Indian Standard Specifications to the extent practicable. Where no such specifications exist they shall be of the best quality available in the market. Wherever ISI certified materials and products are available these alone shall be used. All materials shall be stored at site in accordance with IS-4082-1996.

Unless specially provided for in the contract the tendered rates shall include the cost of carriage, transport, loading, unloading and stacking as directed for all materials required on the work. Where a tender provides a rate for transport of materials, it includes for all loading, unloading and stacking on the site in such position and manner as directed. Any materials found not conforming to specification must be removed from site within 48 hours.

2.0 SITE CLEARANCE:

Before the earthwork is started, the area coming under cutting and/refilling shall be cleared of shrubs, vegetation, grass, uprooting of tree stumps and such others, and rubbish removed up to a distance of 50 metres outside the periphery of the area under clearance. The rate of such site clearance is included in the rate of earthwork.

3.0 STORAGE:

Materials shall be transported, handled and stored at site carefully to the approval of Engineer so as to prevent any damage of any kind to be kept at his own risk and cost.

Cement shall be stored in a weather proof shed, the floor of which shall be raised 300 mm clear from the ground and 600 mm away from the wall all round in order to protect from rain and moisture. Empty cement bag shall be returned to the Company in good condition.

4.0 CEMENT CONCRETE/ REINFORCED CEMENT CONCRETE WORK:

All C.C. work in 1:3:6 proportions shall be done with 18 mm graded down broken stone. Broken stone shall be properly screened before use. All reinforced cement concrete work to be done in prop. 1:1.5:3 unless otherwise specified -- 18mm down to 12mm graded down broken stone as per related drawings and instructions of site Engineer to be followed in case of any discrepancies. Proper vibration to be done as per IS recommendation. Floor panelling to be done in the line of expansion joint as directed by Engineer In-charge.

Fine Aggregate - Fine aggregate shall be hard, durable, clean and free from adherent coating and organic matter. It shall not contain harmful impurities such as pyrites, coal, lignite, mica, shale or similar laminated material, clay, alkali, soft fragments, sea shells and organic impurities in such quality as to affect the strength or durability of the concrete. Fine aggregate to be used for reinforced concrete shall not contain any material liable to attack the steel reinforcement. Fine aggregate which is chemically reactive with alkalis of cement is harmful as cracking of concrete may take place.

Coarse Aggregate - Coarse aggregate shall be obtained from natural sources such as stone, gravel, etc crushed or un-crushed or a continuation thereof from approved quarries. This shall consist of coarse material most of which is retained on 4.75mm sieve. Aggregate shall be hard, strong, dense, durable, clean and free from veins and adherent coatings. It shall be free from soft, feeble, thin, elongated or laminated

pieces and shall be roughly cubical in shape. It shall be clear and free from dirt and any other deleterious matter.

Reinforcement bars - The following types of steel for reinforcement shall be used in reinforced concrete construction and these shall conform to Indian Standards or as revised from time to time mentioned against each

- 1) Mild steel and medium tensile steel bars and hard drawn steel wire – IS: 432.
- 2) HYSD bars – IS: 1786.

Bending & Placing steel reinforcement in position-Bending shall be carried out as per relevant IS specification and direction of the Engineer-in-charge. All reinforcement bars shall be accurately placed in position with spacing and cover as shown in the drawing or as specified and firmly held so during the placing and vibrating and setting of concrete. Bars shall be thoroughly cleared of rust, seals, grease, oil and any other foreign matter before placing them in position. The overlap jointing shall be staggered. The bars shall be fixed with 22G binding wire. Precast cover blocks 1:2 (1 cement: 2sand) cement mortar 40 mm square and necessary thickness shall be used to keep the reinforcement bars in proper position. For this block, no extra payment to be made. Wire required for binding shall not be measured separately. Tack welding shall also be permitted in lieu of building with steel wire.

Proportioning of mix - Proportioning shall be done by volume. Boxes of suitable size shall be used for measuring sand and aggregates. The size of the boxes (internal) shall be 35 x 25cm and 40cm deep. The unit of measurement for cement, shall be a bag of cement weighting 50 Kg and this shall be taken as 0.035 cubic metre. While measuring the aggregate and sand the boxes shall be filled without shaking, ramming or hammering. The proportioning of sand shall be on the basis of its dry volume and in case of damp sand, allowances for bulkage shall be made.

Mixing - Mixing of reinforced cement concrete shall, as a rule be done in a mechanical mixer. However, the Engineer-in-charge may permit hand mixing in specific cases where in his opinion it is not practicable to resort to mechanical mixing, either on account of the quality of cement concrete required is small or for any other reason. In such cases, it should be ensured that the inferior quality of concrete produced by hand mixing will not adversely affect the structure.

Consistency - The quantity of water to be used for each batch containing 50 Kg of cement, to give the required consistency shall not be more than 34 litres for 1:3:6, mix 32 litres for 1:2:4 mix, 30 litres for 1:1.5:3 mix and 27 litres for 1:1:2 mix. In case of vibrated concrete, the above quantity shall be suitably reduced. The quantity of water shall be regulated by carrying out regular Slump Test.

Placing of concrete - Before placing the concrete the sub-base/form work shall be cleared of all injurious or foreign matter, watered and well consolidated. Formwork shall be clean and free from all foreign material. It is necessary that the time between mixing and placing of concrete does not exceed the initial setting process. Mixed concrete that has been left standing shall not be used after the initial set has commenced the addition of water (or cement) to make such a mixture more workable shall not be allowed. In foundation trenches or such other situations, the entire concrete used in the work shall be laid gently (not thrown) in layers not exceeding 15cm. The concrete so deposited shall be thoroughly vibrated by means of mechanical vibrators till dense concrete is obtained.

Curing - Concrete shall be carefully protected during first stage of hardening from harmful effects or excessive heat, drying winds, rain or running water and shock. After the concrete has begun to harden i.e. about 1 to 2 hours after its laying it shall be protected from quick drying with moist gunny bags or any other material approved by the Engineer-in-charge. After 24 hours of laying of concrete the surface shall be cured by flooding water up to 25mm depth or by covering with wet adsorbent materials. The curing shall be done for a minimum period of 7 days from the date of pouring of concrete, unless otherwise specified.

Finishing - In case of roof slabs the top surface shall be finished even and smooth with wooden trowel, before the concrete beings to set. The surface of RCC slab on which the cement concrete or mosaic floor is to be laid shall be roughened with brushes while the concrete is green. This shall be done carefully without disturbing the concrete. Before laying the floor, the laitance shall be removed, the surface of slab hacked and a coat of cement slurry at 2.75 Kg of cement per square metre shall be applied, so as to get a good bond between RCC and concrete floor. The exposed surface which is to receive plaster or where it is to

be joined with brick masonry wall, shall be properly roughened immediately after the removal of form work, taking care to remove the laitance completely without disturbing the concrete. Before the surface is plastered, it shall be cleaned and wetted so as to give good bond between concrete and plaster.

5.0 FORM WORK:

The formwork shall be rigid and so corrected as to retain the shape and dimensions of the member being cast. Form work for concrete shall be seasoned timber/steel or other approved materials as per directions of the Engineer. It shall be sufficiently tightened to prevent loss of cement slurry and all holes and joints shall be chaulked with putty. It shall have sufficient strength and rigidity to withstand the load of concrete, and vibrations, movement of men, materials and plants and any other incidental loads without excessive deflection beyond permissible limits. The formwork shall be so constructed as to be removable in sections by inscribing or otherwise loosening – them without hammering or levering with force. Only wedges, clamps bolts or screws etc shall be used in preference to nails or spikes. All side pieces shall be easily removable without disturbing the bottom pieces. Where however, use of nails and spikes become unavoidable, these shall be left projecting so that they can easily be withdrawn.

Surface treatment for shuttering - Forms shall be cleaned of all dust, wood shavings, dirt and other matter by washing with water. This process is facilitated by providing draining holes in the shuttering. The surface shall then be coated with soap solution applied before concreting is done. Soap solution for the purpose shall be prepared by dissolving yellow soap in water to get consistency of paint. Alternatively a coat of raw linseed oil/refined pale paraffin mineral oil or form oil of approved manufacture may be applied. In case steel shuttering is used, soap solution or row linseed oil shall be applied after thoroughly cleaning the surface. Care shall be taken that such approved composition is kept out of contact with the reinforcement.

In normal circumstances (temperature not below 15 degree C) and where ordinary Portland cement is used form may generally be removed after the expiry of the following periods.

- a) Vertical form work to columns, walls, beams = (16-24) hours
- b) Slabs side (props left under): 3 days
- c) Beam soffits (props. left under): 7 days
- d) Removal of props under slabs
 - i) Spanning up to 4.5 m: 7 days
 - ii) Spanning over 4.5 m: 14 days
- e) Removal of props under beams and arches:
 - i) Spanning up to 6 m: 14 days
 - ii) Spanning above 6 m: 21 days

In no circumstances shall forms be struck until the concrete reaches a strength of at least twice the stress to which concrete may be subjected at the time of removal of form work. All form works shall be removed without such shock or vibration as would damage the concrete. Form work for long span deep beams to be supported by MS props or Bhaluka Bamboo props as required based on the design for the formwork to take care the massive load of the green concrete.

6.0 BRICKWORK:

- a) All bricks shall be of 75 class designation quality locally available as approved by the Site Engineer.
- b) Bricks shall be of size as specified in the item of work or of nominal size where no particular size is mentioned.
- c) Bricks shall be well burnt, sound, hard with sharp edges of uniform size and shape free from cracks, stones or particles of lime and other defects, shall be kiln burnt and satisfy the following requirement:
 - i) They shall give a clear metallic sound when struck
 - ii) They shall be of uniform colour and size
 - iii) They shall not be cracked, stratified or under or over burnt
 - iv) The tolerance in dimensions shall be +/- 12mm in length, 6mm in width and 3mm in height.
 - v) Keys or frogs shall be formed on one of the larger size, except in the case of machine extruded bricks where no frogs are required

vi) The increase in weight when soaked in water for 24 hours shall not be more than 20% of the dry weight of the bricks.

d) If required by the Site Engineer, necessary test shall be conducted at the contractor's expense to ensure quality. In general, the bricks shall be the best quality locally available.

Bricks used for masonry in cement mortar or composite mortar shall be thoroughly soaked in clean water for at least an hour immediately before use (The absence of bubbling when the soaked brick is immersed in water is the test for thorough soaking). The soaked bricks shall be kept on a platform free from dirt, mud or any foreign element. Bricks shall be laid in English bond unless otherwise specified. Care must be taken that the bricks are perfectly clean and free from lime, moss or dirt of any kind. If necessary they must be scrubbed before use. Half or cut bricks shall be not used except for closures which may be required to complete the bond. It shall be ensured that all horizontal and vertical joints are completely filled with mortars without any void in brickwork. Brickwork shall be raised truly plum (or true to required better whereso specified). All courses shall be laid truly horizontal. Vertical joints shall be truly vertical and those in alternate courses shall be in the same vertical line. The thickness of brick courses shall be uniform. Great care must be taken to masonry in progress of construction damp. When work is left off for the day troughs shall be formed, by means of fillets of mortar 51mm high all round the unfinished work and shall be kept filled with water. Vertical or inclined surfaces must be frequently watered from a rose headed can. Water should not be dashed with violence against new work as this washes out the mortar. Should the work be delayed owing to holidays or for other reason, the contractor must make adequate arrangements for keeping the work wetted, and shall continue to do so for at least ten days or such longer time as directed, after the brickwork has been completed.

a) Brick work in cement mortar with 75 designation brick including racking out joints and curing complete as directed, in sub structure and superstructure in mortar of specified proportion.

b) 115mm thick 75 designation brick nogged wall in cement mortar embedded with protruding M.S. rod 6mm dia in column including racking out joint and curing complete as directed in super structure above plinth in proportion as specified.

7.0 CEMENT MORTAR:

i) Must be freshly mixed: Cement mortar will only be mixed in such quantities as can be used up on the work within half an hour of mixing. Mortar which has been mixed longer or which has taken its initial set will on no account be used on the work or remixed with fresh mortar. It must be immediately removed from the site or work.

ii) Method of mixing: The cement and sand will be mixed dry in the specified proportions, by turning over at least three times on the mixing platform. Only sufficient water will then be added, thorough a rose of a watering can, to produce a workable mixture. The wet mortar will be thoroughly worked or mixed by repeatedly turning over, not less than three times on the mixing board.

iii) Size of mixing platform and precaution against list : All mixing of mortar must be done on platforms of angle size and workman bringing the material to and from the platform must not be permitted to walk about on it, thereby bringing mud or dirt to the place, where the mortar is being mixed. The platform must be clean and level and all joints closed or filled so that the cement is not washed out.

iv) Proportion of cement and sand: Where not otherwise specified, cement mortar for plaster will consist of one part of cement to two parts of sand. For mortar for brick or stone masonry work the proportion unless otherwise specified, will be one part of cement to three parts sand

8.0 WOOD WORK:

The work shall be carried out as per detailed drawings and/or as directed by the Engineer-in-charge. The wooden members of the frame shall be planed smooth and accurate to the full dimensions. Rebates, rounding, moldings etc as shown in the drawing shall be done before the members are joined into frames. Timber will be 1st class seasoned as approved by the Engineer-in-charge.

Jointing - Jointing in timber frames must be made carefully and accurately. They shall be strong, neat and shall fit without wedging or filling. The joints shall be pinned with hard wood 10 to 15mm dia after the members of the frame are pressed together in a suitable vice-mechanism.

Surface treatment - Woodwork shall be painted, oiled, polished or otherwise treated as specified. All portions of timber abutting against masonry or concrete portion of building shall be coated with boiling coat tar or other type of approved wood preservative or primer, before placing them in final position.

Hold fasts - Hold fasts used for fixing doors and window frame shall be made of 40 x 3mm flat iron long. It shall have a hole on one end for fixing to frame with 10mm dia bolt, at the other end the flat iron shall be split and bent at right angles in the opposite direction. The hold fast shall be tightly fixed to the frame by means of bolts, the bolt hole in frame being plugged suitably and finished neat. The hole fast shall be embedded into masonry by concrete block as described in the item of work.

9.0 DOORS:

i) The flush door shutters (solid core type) decorative and non-decorative type shall conform to IS: 202 (Part I). The door should be fixed using 4 nos. of hinges 125mm long ensuring that the hinges are not fixed less than 150mm from the edges with 8 nos. parallel sunk fully threaded screws 38mm long, should be used for fixing the hinges to the flush door after drilling a pilot hole 2.50mm dia 40mm long. Screws should not be hammered. Lock, tower bolts etc. necessary, if any to be paid separately.

ii) Door frame (Chowkaths) of door, windows, other similar works wrought, framed and fixed in position in contact with C.C. or brick masonry walls including supplying, fitting and fixing with M.S. flat hold fast (40mm x 3mm x 250mm) as per design and embedded in cement concrete block in prop 1:2:4 and with two coats of kiricide oiling to the timber faces in contact with C.C. and masonry as directed and specified.

10.0 STEEL DOORS, WINDOWS AND VENTILATORS:

The type, over all sizes, side opening position of steel doors, windows and ventilators shall be specified as per details given in IS: 1038, specification for steel doors, windows and ventilators. Both the fixed and opening frames shall be constructed of sections, which have been cut to length and mitred. The corners of fixed and opening frames shall be electrically flash butt welded to form a solid and true right angle and all frames shall be square and flat.

Side-hung shutter windows – Window shutters shall be hung on projecting type hinges (not less than 65mm and not more than 75mm wide). One leaf of the hinge shall be welded into a slot in the outer frame and the other leaf of the hinge riveted to the opening shutters. Friction hinges may be provided for side-hung shutter windows in which case peg-stay may not be required. In cases where non-friction type hinges are provided, the windows shall be fitted with peg-stays, which shall be either of hot pressed brass, cast brass, aluminum or steel protected against rusting and shall be 300mm long with steel peg and locking bracket. The peg stay shall have three holes to open the side hung casements in three different angles.

Top Hung Ventilators – The steel butt hinges for top hung ventilators shall be riveted to the fixed frame or welded to it after cutting a slot in it. Hinges to the opening frame shall be riveted or welded and cleaned off. Top hung casements shall be provided with a peg stay three holes which when closed shall be held tightly by the locking bracket. The locking bracket shall either be fitted to the fixed frames or to the window.

Glazing of metal doors, windows and ventilators - Doors and windows shall normally be glazed with glazing putty on unless otherwise specified. Putty shall be applied between glass panes and glazing bars. Putty shall be applied over the glass panes, which shall stop 2 to 3mm from the sight line of the back rebate to enable the painting to be done up to the sight line, to seal the edge of the putty to the glass. The oozed out back putty shall be cleaned and cut to straight line.

11.0 PLASTER WORK

i) Preparation of surface: All putlog holes in brick work and junction between concrete and brick work shall be properly filled in advance. Joints in brick work shall be raked about 10mm and concrete surface hacked to provide grip to the plaster. Projecting burrs of mortar formed due to gaps at joints in shuttering shall be removed. The surface shall be scrubbed clean with wire brush/coil brush to remove dirt, dust etc. and the

surface thoroughly washed with clean water to remove efflorescence, grease and oil etc. and shall be kept wet for a minimum of six hours before application of plaster.

ii) Proportion: The cement plaster shall be in specified proportion of cement and sand.

iii) Mixing: The cement and sand should be thoroughly mixed in dry condition. After dry mixing the materials shall be wetted with just sufficient water to bring the mortar to proper consistency of thick paste. Mortar should be used immediately after mixing and arrangements shall be made so that not more than 30 minutes elapse between the cement first coming in contact with the moisture and laying. In all exterior plaster works waterproofing compound to be added to the mortar as per the specification of the manufacturer, if not indicated in the item rate quoted should be inclusive of the same.

iv) Placing: Plaster shall be laid over the prepared surface in one coat to the specified thickness and rubbed with "PATAS" and trowel and shall be smooth, free from waviness and trowel marks.

v) Sequence of operations: For external plaster, the plastering operations shall be started from the top floor and carried downwards. For internal plaster, the plastering operations may be started wherever the building frame and cladding work are ready and the temporary supports of the ceiling resting on the wall or the floor have been removed.

vi) Curing: Each coat shall be kept damp continuously till the next coat is applied or for a minimum period of 7 days. Moistening shall commence as soon as plaster is hardened sufficiently. Soaking of walls shall be avoided and only as much water as can be readily absorbed shall be used.

12.0 DAMP PROOFING COURSE:

It shall consist of 1:1.5:3 plain cement concrete with approved water proofing materials such as cico, impermo etc. of specified thickness. Edges of DPC shall be straight, even and vertical side shuttering shall consist of wooden or steel forms and shall be strong and properly fixed so that it is not disturbed during compaction and mortar or cement slurry does not leak through. When forms are struck the surface should be smooth without any honeycombing. The surface shall be kept wet for seven days. Before commencing the superstructure work, the top of concrete course shall be dried and cleaned of all materials. Blown type bitumen shall then be applied uniformly on the surface and the side of the concrete coming in contract with flooring on the inside shall also be painted with bitumen.

13.0 WASHABLE DISTEMPER/OIL BOUND DISTEMPER/PLASTIC EMULSION PAINTING

Preparation of surfaces: The surface shall be thoroughly brushed free from dust, dirt, grease, mortar droppings and other foreign matter and sand papered smooth. Thereafter a smooth surface shall be prepared by applying putty, made of plaster of paris mixed with water on the entire surface including filling up the undulation and then sand papering the same after it is dry.

Primer coat: The primer where used as on undecorated surfaces shall be alkali resistance primer or acrylic based cement primer as specified in the item. These shall be of the same manufacture as oil bound distemper/ plastic emulsion paint. If the wall surface plaster has not dried completely alkali resistance primer shall be applied before distempering the walls. But if the distempering is done after the wall surface is dried completely, cement primer shall be applied.

Application of distemper/plastic paint coat : For undecorated surfaces, after the primer coat has dried for at least 48 hours, the surface shall be lightly sand papered to make it smooth for receiving the distemper/plastic paint taking care not to rub out the priming coat. All loose particles shall be dusted off after rubbing. Minimum two coats of distemper/plastic paint shall be applied with brushes in horizontal strokes followed immediately by vertical, which together shall constitute one coat. The subsequent coats shall be applied after a time interval of at least 24 hours between consecutive coats to permit of the proper drying of the preceding coat. For decorated surfaces, the distemper/plastic paint shall be applied in two coats or more over the prepared surface in the same manner as for undecorated surfaces.

Purchase of paint, varnish or oil: Only the best brands obtainable will be used and should the contract permit the contractor to supply any paint, oil or varnish he shall purchase only such brands as the Site Engineer shall approve of in writing. All purchases must be made direct from the manufacturers or through an agent approved of in writing by the Site Engineer. Should the Site Engineer so direct copies of all indents

and receipts for purchase must be submitted for inspection. Paint etc. to be purchased in sealed containers. All paints, oil or varnishes supplied by the contractor must be produced for the inspection of the Site Engineer of the work in the manufacturers sealed and unopened containers. All containers from which the contents have been removed and are not required on the work must be destroyed and no extra payment will be granted for such destruction. Only ready mixed or varnished of the make or brand specified will be permitted to be used exactly as received from the manufacturer without any admixture what so ever unless previously authorized, in writing, by the Site Engineer.

14.0 SYNTHETIC ENAMEL PAINT:

Preparation of surface: The surfaces before painting shall be cleaned of all rust, scale, dirt and other foreign matter sticking to it with wire brushes, steel wool in case of steel surfaces and sand papering in case of wooden surfaces. Thereafter, one coat of approved primer paint will be applied on the surface. Synthetic enamel paint (Superior quality as approved) shall be applied – two or more coats to give an even shade.

15.0 FILLING EXCAVATED EARTH IN FOUNDATION TRENCHES AND PLINTH OR UNDER FLOORS:

As soon as the work in foundation has been completed and measured, the sides of foundations shall be cleared of all debris, bricks bats, mortar dropping etc, and filled with earth in layers not exceeding 30cms, each layer shall be adequately watered, rammed and consolidated before the succeeding one is laid. Earth shall be rammed with iron rammers where feasible, and with the butt ends crowbars where rammer cannot be use.

The plinth shall be similarly filled with earth in layers not exceeding 30cms, adequately watered and consolidated by ramming with iron or wooden rammers. When filling reaches the finished level, the surface shall be flooded with water for at least 24 hours, allowed to dry and then rammed and consolidated, in order to avoid any settlement at a later stage.

Sand filling in plinth: Sand shall be clean and free from dust, organic and other foreign matter. Sand filling shall be done in a manner similar to earth filling in plinth. Concreting of floor shall not be started till the Engineer-in-charge has inspected and approved the filling.

16.0 CERAMIC TILE FLOORING/SKIRTING:

a) Preparing of Plinth Filling: All plinth fillings shall be properly consolidated in layers, watered, rammed and allowed to consolidate to the Site Engineer's satisfaction before any flooring is laid. When the flooring is to be laid over a foundation of sand, broken stone, brick or a combination of sand and broken stone or brick the filling shall be removed to a depth equal to the thickness of the flooring plus such foundation layers.

b) Foundations:

i) Sub-layer of sand : After the plinth filling has been prepared as detailed in specification above a sublayer of sand 300mm deep shall be laid watered and brought to an even surface.

ii) Layer of broken stone or brick : Over the sand a foundation course of bricks shall be laid and the interstices filled in with sand. The bricks shall be tightly packed and laid so as to break joint.

c) Tile floors:

i) Foundation and cement floating under tiles: Over the foundation as in (b) above 2 coats of cement plaster, 1part of cement to 1 part of sand, prepared in a very liquid condition will be floated over it and allowed to set.

ii)Laying: After the tiles have been soaked in water for at least two hours and the cement foundation sprinkled with water, laying work may commence and shall start from the centre of the room or area to be tiled, work being continued in both directions so that borders are laid last. A layer of 20mm thick (average) cement mortar: 1:4 (1 cement: 4 sand) (unless otherwise specified) shall be provided as bedding for the tiles. Each tile will be laid in and drawn up in neat cement of honey like consistency at 4.40 Kg of cement per sqm, care being taken to exclude air bubbles. Threads shall be stretched cross the surface, at intervals, parallel to the short sides of the area to be tiled to serve as guide lines. Each tile being gently tapped with a wooden mallet till it is properly bedded. The joints shall be grouted with white cement and matching pigment complete. The surface of the flooring shall be checked frequently with a straight edge so as to obtain a true

surface with slope, if required. At position where full tiles cannot be fixed, the tiles shall be cut to size and smoothened to give straight and true joints.

iii) Cleaning: After a small area has been laid all superfluous cement will be wiped off the surface. Stains shall be removed by moistening with hydrochloric acid and rubbing with pumice stone and afterwards washing with warm water.

iv) Curing: The floor shall be kept wet for a minimum of 7 days so that bedding and joints set properly.

17.0 PLINTH PROTECTION AND STORM WATER DRAIN:

Plinth protection and storm water drain shall be provided along the outer periphery of the building as per drawing and with PCC (1:3:6) over bricks flat laid in CM 1:4 and finished with 15mm thick cement plaster in prop. 1:2 with floating coat of neat cement finish.

18.0 SANITARY, PLUMBING WORKS AND WATER SUPPLY FITTINGS & FIXTURES:

All sanitary, plumbing and water supply fittings and fixtures shall conform to the specifications and particular make specified in the items of work and direction of Engineer-in-charge. All waste and soil pipes and fixtures shall conform to IS specifications and shall be jointed as specified.

i) Indian/European W.C. with PVC flushing cistern as per drawing & specification.

ii) Wash basin and urinal pan at toilet as per drawing & specification. Wash basins to be provided with C.I. brackets.

iii) Providing soap tray in the toilet.

iv) Rain water pipe as per drawing & specification

v) Gully trap

vi) Inspection chambers, manholes, septic tanks, drainage pipes etc. as per drawings.

vii) Medium class GI pipes with all GI fittings clamps and specials etc. for water supply lines 25mm, 20mm & 15mm.

viii) Concealed PE-AL-PE pipes for water supply.

19.0 P/F PRE PAINTED GALVALUME/GALVANISED SHEET ROOFING

Pre Painted Galvalume Sheet at all levels shall be fitted and fixed with self drilling, self tapping screws complete (roof trusses, purlins to be measured and paid separately) of make Dyna roof/sathyam/century wells and of thickness as specified in the respective items. Preferably it shall be carried out by a reputed party.

(a) Cut the pipe square by cutter to the required and proper length.

20.0 ANTITERMITE TREATMENT (IS 6313):

Injecting chemical emulsion of Chlorpyriphosemulsifiable concentrates 20% with 1% concentration for pre-construction anti-termite treatment and creating a continuous chemical barrier under and all-round the column pits, trenches, top surface of plinth filling, junction of walls and floor along the external perimeter of building expansion joints, surroundings of pipes and conduits etc complete as per specification (plinth area of the building at ground floor only shall be measured for payment) and to be executed by reputed party.

21.0 TESTS FOR QUALITY CONTROL:

The various tests shall be carried out by the contractor as and when instructed by the Engineer-in-charge and no separate payment shall be made unless otherwise specified in the schedule of rates. Following tests /test certificate to be produced by the contractor at his own cost as and when directed by the Engineer-in-charge.

i) Water for construction and curing ('PH' value should not be less than 6.)

ii) Cube test for RCC work. (Test to be performed in presence of company representative).

iii) Manufacture Test certificate for steel materials, M.S. rod, Tor steel should be produced prior to its use in construction.

iv) Brick test as per BIS 1077 and BIS 3495 (part 1 and 2)

v) Test for fine and course aggregate

vi) Any other tests as per the direction of Engineer-in-charge.

22.0 MEASUREMENT & PAYMENT:

Payment for all works done shall be made on the basis of actual work done as per the schedule of rates. For all extra work done on the advice of the Company's Engineer and which is not included in the schedule of rates, deviation order for the same shall be made on the rates as decided by the Company's Engineer.

23.0 SAFETY MEASURE:

Safety measure as per OIL regulations shall be strictly adhered to by the Contractor. Safety belts and other measure taken by the Contractors shall be borne by the Contractor. If any loss or damage caused to life during the erection and execution, the contractor shall be fully responsible for the loss.

24.0 RECORD KEEPING:

- i) A site order book will be maintained at site which will be in the custody of the Engineer-in-charge or his representative and all instructions given to the Contractor will be recorded in the site order book and the same has to be signed by the contractor to comply with the instruction given therein.
- ii) A register to be maintained at site which will be in the custody of the Engineer-in-charge or his representative to maintain the records of use of cement and the same has to be signed by the contractor
- iii) A separate register to be maintained at site by the contractor to record the works executed and remarks columns to be added in this to record the hindrance.

25.0 In case of any ambiguity/conflict among various documents the decision of Engineer-in-charge will be final and binding.

26.0 CONTRACTOR'S GODOWN

The contractor must make adequate arrangement as directed by the Engineer-in-Charge, for the storage in suitable godown of all perishable materials such as cement. On no account may cement be stacked on the ground either in or outside godown. The contractor shall also construct a temporary office at site, before start the execution of work at site, as directed by the Engineer- in charge.

27.0 SPECIAL INSTRUCTION TO THE CONTRACTOR

- i. Contractor must use mixture machine and vibrator for the RCC works. The Contractor shall use pump if needed for dewatering for excavation job for which no extra payment will be made.
- ii. Watch and ward, loss or damage to Company's property, theft and other incidental charges shall be Contractor's responsibility.
- iii. Efficient workmen to be engaged by the Contractor.
- iv. The Contractor's representative should report to Engineer-in charge on all working day's at 7.00AM for instruction.
- v. Materials if rejected should be removed from site within 48(forty eight) hours of rejection, failing which the company reserves the right to get the rejected materials removed at the risk and cost of the contractor.
- vi. The Company reserves the right to get the part or whole work completed through other agency at the risk and cost of the contractor if he fails to complete the work within the stipulated time without any valid reasons. The Company's decision shall be final and binding on the Contractor.
- vii. Water that may accumulate on the site during progress of the works or in trenches and excavation from other than accepted risks shall be removed from the site to the satisfaction of the Engineer-in-charge and at the Contractor's expense.
- viii. If needed water and electricity will have to be arranged by the Contractor at his own cost. However, if felt, water and single phase power supply may be provided by Co. on Chargeable basis depending on its availability & approved by the Competent authority.
- ix. The Contractor and his workmen have to strictly observe the safety precautionary rules as per Mines Act. (Latest edition) while executing the work.
- x. No road closure will be allowed during execution of work and necessary traffic signal/road boards to be displayed at proper place by the Contractor at his own cost. The Contractor shall be wholly responsible for any accident arising out of non-fulfilment of this condition.
- xi. The Contractor will be required to work expeditiously at the site and must visit the site before tendering.

xii. Welding and cutting sets with fuel & operator, welder, fitter etc. shall be arranged by the Contractor at his cost at site for fabrication and erection work.

xiii. Hot and Cold permit, Gas leakage testing certificate issued by the Concerned Department to be submitted by the contractor(whenever applicable) to Engineer-in-Charge before starting of dismantling or the other execution of job.

xiv. The contractor must engage at least one or as mentioned in the Contracts Agreement qualified Technical personal (Preferable BE/B Tech in Civil Engineering with minimum 3 years' experience or diploma in Civil Engineering with minimum 5 years' experience) for the overall execution of the job and the complete bio-data of the person should be submitted to the engineer in charge within 7 days of the signing of the Contract agreement. In case the contractor does not deploy qualified technical person as mentioned above, the company has right to penalize the contractor at a rate decided by the company

xv. The contractor must submit a work plan in bar chart for the overall job to complete it within 14 days of issuing of work order.

II. ANNEXURE B: SCOPE OF ELECTRICAL WORK

1.0GENERAL:

a. Special conditions of contract shall be read in conjunction with the General Conditions of Contract, Schedule of Quantities specifications of work, drawings and any other document forming part of this contract wherever the context so requires.

b. Notwithstanding the sub-division of the documents into these separate sections and volumes, every part of each shall be deemed to be supplementary of every other part and shall be read with and into the contract so far as it may be practicable to do so.

c. Where any portion of the General Conditions of contract is repugnant to or at variance with any provisions of the Special conditions of Contract, then unless different intention appears, the provisions of the Special Conditions of Contract shall be deemed to override the provision(s) of General Conditions of Contract only to the extent that such repugnance or variance cannot be reconciled with the tender conditions of contract and shall be to the extent of such repugnance or variations, prevail; it being understood that the provisions of General Conditions of Contract shall otherwise prevail.

d. Wherever it is stated anywhere in this tender document that such and such a supply is to be effected or such and such a work is to be carried out, it shall be understood that the same shall be effected/carried out by the contractor at his own cost, unless a different intention is specifically, and expressly stated herein or otherwise explicit from the context.

e. The materials, design and workmanship shall satisfy the relevant Indian Standards, the job specifications contained herein & codes referred to. Where the job specifications stipulate requirements in addition to those contained in the standard codes and specifications, these additional requirements shall also be satisfied. In the absence of any Standard/Specifications/Codes of practice for detailed specifications covering any part of the work covered in this tender, the instructions/directions of Company will be binding on the Contractor.

f. The items given under Schedule of Quantity shall be read in conjunction with scope of work, scope of supply (by Contractor) and job specifications and in case of any irreconcilable conflict between them the provision in the item under "Schedule of Quantity" will override the corresponding provision only if the scope of work, scope of supply and job specifications, which cannot be reconciled in such cases the decision of Company shall be final and binding on the contractor.

g. In case of contradiction between Indian Standards, General Conditions of Contract, Special Conditions of contract, Specifications Drawings, Bill of Quantity, the following shall prevail in order of precedence.

(i) Letter of intent / Detailed Letter of intent along with statement of Agreed Variations and its enclosures.

(ii) Schedule of Quantity.

(iii) Special Conditions of Contract.

(iv) Job specifications/

(v) Drawings

(vi) General Condition of contract

(vii) Indian Standard/Technical/Material Specifications.

2.0 LOCATION OF SITE AND SITE PARTICULARS

Location of work: New Civil Engineering Building, Duliagan.

The intending Bidder shall be deemed to have visited the site and familiarized himself thoroughly with the site conditions and job details before submitting the tender. Non familiarity with the site conditions will not be considered a reason either for extra claims or for not carrying out the work in strict conformity with the drawings and specifications.

3.0 STATUTORY REQUIREMENT FOR WORK

The contractor should have valid Electrical Contractor License issued or recognized by State Licensing Board, Govt. of Assam. In case license expires during contract period the same shall be renewed by the contractor. The contractor shall be terminated if the license is not renewed, if required.

Contractor shall employ work persons with valid wireman permit issued by State Licensing Board, Govt. of Assam to carry out all electrical jobs and shall deploy one supervisor holding valid Electrical supervisor's competency certificate issued/recognized by State Licensing Board, Govt. of Assam for supervision of electrical jobs.

Quality of jobs carried out by the Contractor shall be of high standard and should be as per the norms of BIS, NEC, CEA Regulations and other electrical standards recognized by the company.

4.0 POWER

Electricity required for wiring purpose shall be arranged by the contractor. However, single phase power source may be provided by the Company at its discretion to use drill machine or any other portable tools required for wiring purposes if available at nearest point on chargeable basis. The Contractor shall have to arrange for required switch board with proper safety device like RCBO/ELCB/RCCB to draw power and use safely from the existing source.

5.0 SCOPE OF SUPPLY

Company does not envisage supplying any material for this work & contractor has to arrange all materials of his own & the rates quoted shall be deemed to include the same.

6.0 SCOPE OF WORK

Brief details of work to be carried out by the contractor includes supply, storage, installation, testing, laying, jointing, obtaining approvals, testing and commissioning and completion of all electrical work. The contractor shall have to take prior approval from OIL for all electrical items before purchasing. Without approval of electrical items, contractor will not be allowed to work. The work shall be carried out as described in Schedule of Quantities (SOQ), specifications, and drawings, BIS / NEC guidelines and as per the instructions by Engineer-in-charge (Electrical) of OIL. The broad items/activities covered under internal electrical works shall include the Supply, Carry out & Installation of the following

- i) Point wiring of all lights points, call bell points, Ceiling fan points, exhaust fan points.
- ii) Light plug points, general power points, metal clad plug & socket outlet points etc. including light and power accessories etc. complete in all respects.
- iii) Light fixtures, Ceiling fan and exhaust fans.
- iv) All concealed wiring shall be through BIS marked Medium/heavy duty PVC conduit on or through wall, roof, floor beams, false ceiling, floors etc.
- v) Main Incomer Cables from Feeder Pillar to LT panel through UG trench.
- vi) Cables from LT panel to VTPNDB through wall by saddling
- vii) Cables from VTPNDB to Sub Distribution Board, sub main wiring from main/sub distribution boards to various final distribution boards.
- viii) Fixing of LT panel grouting with Nut & Bolt/Anchoring bolt
- viii) Earthing of all Main MCCB LT panel, Main DBs and SUB DBs etc. complete in all respects.

7.0 SCHEDULE OF QUANTITIES/RATE

The quantities shown against the various items are only approximate and may vary to any extent individually subject to relevant clause of General Conditions of Contract. Any increase or decrease in the quantities shall not form the basis for alteration of rates quoted and accepted including where low/high rates have been quoted by the successful bidder.

The Engineer in charge reserves the rights to interpolate or extrapolate the rate for any new item of work not finding a place in the Schedule of Quantity, for similar items of lower and or higher magnitude available in the Bill of Quantity.

In case any activity though specifically not covered in Schedule of Quantity description but covered under scope of work/spec./drawing etc., contractor has to carry out the same without any extra claim.

8.0 PRICE VARIATION:

OIL requires "FIRM PRICES" as indicated in General Conditions or Contract during Contract period and no material or labour escalation shall be admissible on any account whatsoever.

9.0 MEASUREMENTS, BILLING & TERMS OF PAYMENT

All works shall be measured in metric system based on actual work done as per the terms and conditions of the Tender documents. Running Accounts bills based on Bill of Quantity shall be prepared and submitted based on joint measurements.

10.0 DEDUCTIONS FOR INCORRECT WORK:

If, the Engineer-in-charge(Electrical) deems it expedient to correct work damaged or not done in accordance with the contract, an equitable deduction from the contract price shall be made thereof and the decision of the engineer shall be final.

11.0 CONTRACT DRAWINGS

Contractor has to prepare all working drawings mentioned below and obtain approval from the Engineer in charge (Electrical) before starting the Civil work so that piping works for wiring job does not suffer due to non-approval of the working drawings:

- a) Layout diagram of complete conduit job for concealed wiring showing route for wiring from DB to sub-DB, sub-DB to Switch Board, Light and ceiling positions etc.
- b) Schematic diagram for complete electrical work.
- c) All Electrical item such as VTPNDBs, TPNDBs, SPNDBs, Ceiling fans, Exhaust fans, Switch boards, Switch sockets, Lights etc. should be marked with number in the layout and schematic diagram.
- d) The contractor shall keep at least one copy each of drawings, conditions of contract, specifications, instructions and schedule of quantities at the site of works available for reference by any authorized representative/Engineer-in-charge(Electrical), at all times during the progress of the works.
- e) Contractor has to submit the LT Panel diagram (General Arrangement drawing, Schematic diagram and Bill of material) and take prior approval from Concern Engineer in charge before manufacturing.

12.0 TECHNICAL SPECIFICATIONS:**CHAPTER -1: TECHNICAL REQUIREMENTS & MEASUREMENT SYSTEM****1.0 SCOPE**

This chapter covers the general technical requirements and measurement system of the various components in Internal Electrical Installation works.

1.0 TERMINOLOGY

1.1.1 The definition of terms shall be in accordance with IS:732-1989 (Indian Standard Code of Practice for Electrical Wiring), except for the definitions of point, circuit, and sub-main wiring, which are defined in clauses 1.2.1, 1.3.1, and 1.3.2 hereunder.

1.2 POINT WIRING**1.2.1 Definition**

Point wiring:

A point (other than socket outlet point) shall include all work necessary to complete wiring to the following outlets from the controlling switch or MCB.

1.2.2 Scope

Includes supply & fixing of all specified items like Conduit Casing -capping, accessories like screws, rawl plugs, Outlet boxes, junction boxes, pull-through boxes-etc., including metal boxes if any, provided with switch boards for loose wires/conduit terminations, bushed conduit or porcelain tubing where wiring cables pass through wall etc.

1.2.3 Measurement:**1.2.3.1 Point Wiring:**

There shall be no linear measurement for point wiring for light points, fan points, exhaust fan points and call bell points.

These shall be measured by counting only.

1.2.3.2 Wiring for socket outlet points:

Light plug point 6 A, Power point 6/16A, 20A metallic socket wiring shall be measured as total length of wiring and shall be measured on linear basis along the run of wiring depending on the actual number and sizes of wires run .

The power point outlet may be 16A /6 A six pin socket outlet, where so specified in the tender documents.

1.3 CIRCUIT AND SUBMAIN WIRING:**1.3.1 Circuit wiring:**

Circuit wiring shall mean the wiring from the distribution board up to the tapping point for the nearest first point of that distribution circuit, viz. up to the nearest first switch box.

1.3.2 Sub-main wiring:

Sub-main wiring shall mean the wiring item one main/distribution switchboard to another.

1.3.3 Measurement of sub-main wiring:

The sub main wiring shall be measured on linear basis and paid for separately.

1.4. OTHER WIRING WORKS:

Except as specified above for point wiring, circuit wiring and sub-main wiring, other types of wiring shall be measured separately on linear basis along the run of wiring depending on the actual number and sizes of wires run.

1.5 SYSTEM OF DISTRIBUTION AND WIRING:**1.5.1. Control at the point of entry of supply:**

There shall be a circuit breaker on each live conductor of the supply mains at the point of entry.

1.5.2 Distribution:

The wiring shall be done on a distribution system through main and/or branch distribution boards. The system design as well as the locations of boards shall be as indicated in BOQ/drawings or as specified by the OIL Engineer-in-charge. Main distribution board shall be controlled by a circuit breaker. Each outgoing circuit shall also be controlled by a circuit breaker. The branch distribution board shall be controlled by a circuit breaker. Each outgoing circuit shall be provided with a miniature circuit breaker (MCB) of specified rating on the phase or live conductor. The loads of the circuits shall be divided, as far as possible, evenly between the numbers of ways of the distribution boards, leaving at least one spare circuit for future extension.

The neutral conductors (incoming and outgoing) shall be connected to a common link (multilayer connector) in the distribution board and be capable of being disconnected individually for testing purposes.

'Power' wiring shall be kept separate and distinct from 'Lighting' wiring, from the level of circuits i.e., beyond the branch distribution boards.

1.5.3. Balancing of Circuits:

The balancing of circuits in three wire or poly phase installations shall be arranged beforehand to the satisfaction of the OIL Engineer-in-charge.

1.5.4 Wiring System:

Wiring shall be done only as per "point wiring" or "running metre" standard, as explained above.

Lights, fans and call bells shall be wired in the 'lighting' circuits.

6/16A combined socket outlets and other power outlets shall be wired in the 'Power' circuits. 5A/6A Socket outlet shall be wired in the light plug point circuit.

The wiring throughout the system shall be such that there is no break in the neutral wire except in the form of linked MCCB's, MCB's, RCBO's etc.

1.5.5 Run of Wiring:

The wiring shall be in concealed conduit only. Due consideration shall be given for neatness, good appearance and safety.

1.6 Joints in wiring:

No bare conductor in phase and / or neutral or twisted joints in phase, neutral, and / or protective conductors in wiring shall be permitted. There shall be no joints in the through-runs of cables. If the length of final circuit or sub main is more than the length of a standard coil, thus necessitating a through joint, such joints shall be made by means of approved mechanical connectors in suitable junction boxes.

1.7 RATINGS OF OUTLETS:

Exhaust fan, LED light, shall be rated according to their capacity.

1.8 CAPACITY OF CIRCUITS:

'Lighting' circuit shall not have more than a total of 10 points of light, fan and socket outlets, or a total connected load of 800W, whichever is less. 'Power' circuit shall have only one outlet per circuit.

1.9 CONFORMITY TO CEA REGULATIONS, 2010 AND STANDARDS:

All electrical works shall be carried out in accordance with the provisions of CEA Regulations, 2010, BIS and National Electric code, National Building Code. List of Rules of particular importance to building installations is given in Appendix for reference. The works shall also conform to relevant Indian Standards in all electrical installation works, relevant safety codes of practice shall be followed.

1.10 GENERAL REQUIREMENTS OF COMPONENTS:**1.10.1 Quality of materials:**

All materials shall be of such design, size and material as to satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site.

1.10.2 Ratings of components:

All components in a wiring installation, conductors, switches and accessories shall be of appropriate ratings of voltage, current, and frequency, as indicated in SOQ.

1.10.3 Conformity to Standards:

All components shall conform to relevant Indian Standard Specification, as per broad list specifying makes of components given in Appendix 'A' including amendments or revisions there of up to the date of tender acceptance, shall be applicable in the respective contracts.

1.10.5 General Notes:

a) Items shall be procured from the manufacturer or their authorized dealers only.

b) All the items shall be brand new and shall bear BIS monogram, wherever specified.

c) Item shall be guaranteed for a period of one year from the date of installation of materials against any manufacturing defect or workmanship.

1.11 CABLES:

1.11.1 Wiring cables:

Conductors of wiring cables shall be of copper. The smallest size of conductor for various circuits including earthing shall be not less than as follows: 'lighting' 1.5 sq mm. 'power' 4 sq mm, Sub Main 6 sq mm, Main 10 or 16 sq.mm. All wiring cables shall be Copper, FRLS, single core, PVC insulated, unsheathed, 1100V grade, BIS marked & FIA & TAC approved, with flexible conductor.

1.12 Providing earth continuity wires:

The earth continuity wire shall be provided in the conduit throughout the length of wiring. The size of earth continuity wire shall be same size with the main wire for circuits. All metallic parts, switchboards, light fittings and power sockets shall be connected to the earth wires and the connection shall be electrically and mechanically sound.

1.13 PVC Conduits:

1.13.1 All rigid conduit pipes shall be of medium duty PVC conduit of standard quality and be BIS marked.

1.13.2 The conduit wiring system shall be complete in all respects, including their accessories. Where a large number of control switches and/or fan regulators are required to be installed at one place, these shall be installed in more than one outlet box adjacent to each other for ease of maintenance.

1.13.3 Bunching of cables in conduit:

Cables shall always be bunched so that the outgoing and return cables are drawn into the same conduit. Where the distribution is for three phase loads only, conductors for all the three phases and neutral wire shall be drawn in one conduit.

1.14 WIRING ACCESSORIES:

1.14.1 Control switches for points:

Control switches (single pole switches) carrying not more than 16A shall be modular type complete with plate, as specified, and the switch shall be #ON# when the knob is down. Control switch shall be placed only in the live conductor of the circuit. No single pole switch or fuse shall be inserted in the protective (earth) conductor, or earthed neutral conductor of the circuit.

1.14.2 Socket outlets:

6/16 pin Socket outlets shall be of shutter type modular complete with plate. These shall be rated either for 6A, or 16A. Combined 6 pin 6A/16A pin socket outlet shall be provided in 'power' circuits wherever specified. 6A Socket outlets shall only be of 5 pin type; the third pin shall be connected to earth through protective (loop earthing) conductor. The control switches for 6A and 16A socket outlets shall be kept along with the socket outlets. Generally, socket out let shall be installed at a height of above 30 cm but below 130 cm from the floor level. The layout of wiring shall be as approved by Engineer in Charge (Electrical).

1.14.3 Switch box covers:

These shall be modular type of suitable size.

1.15 FITTINGS:

1.15.1 Indoor type fittings specification:

Mirror optic suspension/recessed type LED luminaire with all accessories and LED drivers, ready for installation as per the following description.

1) Optical system should provide all round glare and beam control.

2) Luminaire shall be supplied with:

a) For 2 x2 LED luminaire, minimum output Lumen shall be 3200 and colour temperature shall be in between 5500-6500K. Driver shall be external and efficacy shall be 90%. Power factor >0.9, THD < 10%, IEC Compliant for safety.

- b) For LED Batten 4ft long Luminaire, minimum output Lumen shall be 1700Lumen and efficacy shall be more than 85%. Power factor >0.9, THD < 10%.
 - c) For LED Batten 2ft long Luminaire, minimum output Lumen shall be 1300 Lumen and efficacy shall be more than 85%. Power factor >0.9, THD < 10%.
 - d) For LED downlight, minimum lumen out shall be 1200 Lumen, CRI>80%, driver shall be constant current non-integrated, Optics High Efficiency diffuser with more than 85% Transmittance.
 - e) For suspended type LED (1x4) type luminaire, minimum output lumen shall be 1700 Lumen and efficacy shall be more than 85%. Power factor >0.9, THD < 10%.
- 2) Luminaires shall be supplied with all standard accessories (including chains etc. if required) for suspension mounting.
Power supply: 230/240v, 50 Hz, single phase
The type of fittings shall be as specified in BOQ.

1.16 PRE-WIRED MCB DISTRIBUTION BOARDS:

Pre wired MCB DB's shall be provided only where specified.

The complete board shall be factory fabricated and shall be duly pre wired in the works, ready for installation at site. The board shall be of wall mounted, cubicle type construction, fabricated out of 1.6mm thick sheet steel, with stove enamelled paint finish. The board shall also be provided with a loose wire box as a compartment for the complete width and, depth of the board, and of minimum height of 125mm in case of TPN DB's, and 100mm in case of SPN DB's. The board shall be provided with a hinged cover of 1.6mm thick sheet steel in the front. Only the knobs of the MCB's shall protrude out of the front covers through openings neatly machine made for the purpose. Knock out holes at the bottom, and detachable plate with knock out holes at the top of the board shall be provided. Each distribution board shall be provided with a circuit list giving details of each circuit which it controls and the current rating of the circuit, and the size of the MCB. The board shall be complete with the following accessories:

- a) 100 A copper bus bar(s)for MCB DBs.
- b) 250 A copper bus bar for MCCB DB
- c) Neutral link.
- d) Common earth bar.
- e) DIN bar for mounting MCB's
- f) Screw type terminal connectors suitable for incoming and outgoing cables.
- g) Earthing stud(s)

The board shall be fully prewired with single core PVC insulated copper conductors/insulated solid copper links, and terminated on to extended type terminal connectors, suitable for connections to the sizes of the respective conductors. All incoming and outgoing wiring to the pre wired MCB DB's shall be terminated only in extended terminal connectors to be provided within the DB. The terminal connectors shall, therefore, be so provided as to facilitate easy cable connections and subsequent maintenance. Elmex connectors are to be provided. A common copper earth bar shall be provided within the loose wire box. The common neutral bar as well as the terminal connectors shall, however, shall be provided within the main compartment just below the loose wire box.

1.17 MINIATURE CIRCUIT BREAKERS (MCB's):

'C' series MCB's shall be invariably used for all loads. Ratings (A), number of poles, type as MCB or isolator, etc. shall be as specified in the SOQ. The MCB's shall be of minimum 10KA rupturing capacity.

1.17 SWITCH BOARD LOCATIONS:

1.17.1 General aspects:

Switch boards shall be located as indicated on the drawings or as instructed by OIL's engineer. However exact location will be as per suitable available spaces.

1.18: A switch board shall be installed so that its bottom is 1.30 m from the floor level. Where it is required to terminate a number of casing capping or conduits on a board, it may be convenient to provide a suitable PVC adopter box for the purpose. Such boxes shall be provided with the prior approval of the Engineer-in-charge (Electrical) and this will not be paid for separately. No apparatus shall project beyond any edge of the panel.

1.19 FANS, REGULATORS AND CLAMPS:

1.19.1 Fan Regulators:

Electronic modular type fan regulator shall be from approved vendor. The regulators are to be procured from authorized dealer to ensure genuineness of the material. Fan regulator shall be fixed in the switch board as per the ceiling fan circuit shown in the drawing.

1.20 WORKMANSHIP:

Good workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall conform to sound Engineering practice. The work shall be carried out under the direct supervision of a person holding a valid supervisor's certificate of competency issued by the State Govt. for the type of work involved, employed by the contractor, who shall rectify then and there the defects pointed out by the Engineer-in-charge (Electrical) during the progress of work.

1.21 COMMISSIONING ON COMPLETION:

After the entire wiring is completed, a joint inspection shall be carried out. The contractor shall rectify the defects pointed out by OIL during inspection. The works shall be tested by the contractor and contractor shall submit the test certificates duly signed by the competent persons. The system shall be energised only after OIL approves the work done and submission of test certificate.

1.22. SUBMISSION OF DOCUMENTS ON COMPLETION

The following documents are to be submitted after completion

- Test Certificate
- Layout of all equipment, switch boards, DB's etc.
- Manufacturers test report & data sheets for equipment if any.
- Single Line Diagram
- Cable schedule, DB Charts
- Schematic diagram for overall electrical distribution duly laminated
- GA & schematic MV Panel Distribution Boards UPS etc.
- Guarantee/Warranty Certificates of Electrical equipment/items wherever required

APPENDIX-A

SL No	Item Description	Approved make
1	All Single core BIS marked, copper FRLS PVC insulated stranded flexible 1100 v grade cable (as per IS 694 of size/rating as specified in SOQ)	FINOLEX/HAVELLS /L&T/POLYCAB/RR KABEL
2	All Earth Wire of size as specified in SOQ	FINOLEX/HAVELLS /L&T/POLYCAB/RR KABEL
3	Copper lugs	DOWELL/3D-BILLET/JAINEX/SCHNEIDER (MERLIN GERIN)
4	PVC conduit	RICHA/PLAZA/AKG/PRESTO PLAST
5	Metal clad switch-socket unit, 20/25 Amps	LEGRAND/SCHNEIDER/SIEMENS/HAVELLS/INDO-ASIAN
6	Ceiling fan, 1400 mm Sweep, White in Colour.	HAVELLS(Pacer)/BAJAJ(Kassels)/ORIENT (PSPO)/USHA/CROMPTON GREAVES
7	LIGHT FITTINGS (including Driver): i) LED 1x4 suspended LED Batten, ii) 4 feet LED Batten, iii) 2 feet LED Batten, iv) 2 X 2 feet LED downlight fitting	LIGHT PHILIPS/CROMPTON/ GE/BAJAJ/HAVELLS
8	All MCCB	INDO ASIAN/LEGRAND/SIEMENS/ABB/L&T.
9	All MCB'S (10KA, C- curve)	ABB/INDO-ASIAN/L&T SCHNEIDER/SIEMENS/LEGRANDS
10	All RCBO Note: Make of RCBO, MCBs and box shall be of same make.	ABB/INDO-ASIAN/L&T/ SCHNEIDER/SIEMENS/LEGRANDS
11	All MCB DB Note: MCB DB and MCBs/RCBO fitted therein have to be of same make.	ABB/INDO-ASIAN/L&T/ SCHNEIDER/SIEMENS/LEGRANDS
12	VTPN DB Note: VTPN DB and all components fitted therein have to be of same make.	ABB/INDO-ASIAN/L&T/ SCHNEIDER/SIEMENS/LEGRANDS
13	Modular switches/Socket/Box/ Blank plate	LEGRAND/SCHNEIDER/CRABTREE INDOASIAN ELVIRA/HAVELLS/MK
14	Modular Fan regulator 100W	LEGRAND/SCHNEIDER/CRABTREE

		INDOASIAN ELVIRA/HAVELLS/MK
15	Metal GI Box	LEGRAND/SCHNEIDER/CRABTREE INDOASIAN ELVIRA/HAVELLS/MK
16	Metal enclosure for MCB	LEGRAND/SCHNEIDER/SIEMENS INDOASIAN/L&T
17	Exhaust fan	USHA/HAVELLS/CROMPTON/BAJAJ
18	Power (3.5X70sqmm) Cable	NICCO/ASIAN/CRYSTAL/UNIVERSAL/ CCI/RPG/INCAB/POLYCAB/ANKUR/ NECAB
19	Earthing cable (1X25sqmm)	NICCO/ASIAN/CRYSTAL/UNIVERSAL/ CCI/RPG/INCAB/POLYCAB/ANKUR/ NECAB
20	GI Pipe for earthing	JINDAL/TATA
21	Digital Earth Leakage Relay with CBCT	LEGRAND/SCHNEIDER(MG)/GE/PROKDV'S
22	Digital Multifunction Meter	Schneider Power logic PM200 series/HPL- SOCOMEK(Diris A41)/ Siemens PAC3200/Secure
23	Digital Ammeter with inbuilt selector switch	Schneider electric/ HPL/ LT/SIEMENS
24	Current Transformer	Kappa/ Precise Electrical/ Pragati Electrical/ SIEMENS/L&T/SCHNEIDER Electric
25	LED indication lamp	binay/tecnic/L&T/Siemens
26	HRC Fuse	GE/ Siemens/ L&T/ Schneider/ Cooper Bussman

OTHER ITEMS:

AS APPROVED BY THE ENGINEER-IN-CHARGE OR AS PER SOQ AND SPECS.

Note 1: Contractor should restrict to the makes specified in Appendix A above. In case of urgency, operational exigencies, difficulty in procuring or obsolescence, other equivalent makes may be approved. Such equivalents however, may be used only with the prior written approval of OIL's engineer. Contractor shall apply for such approval, in writing to OIL's engineer-in-charge, furnishing proper justification and relevant specifications (to prove equivalence) of the proposed item/items.

Note 2: For items not appearing in Appendix A above, the makes shall be decided by OIL's Engineer-in-charge.

Note 3: Certain items shall be installed as one integral unit, as per specification in SOQ (like MCB, RCBO and MCB DB; or MCB and metal box, or VTPN). In such cases, the make shall be the same for all items within that integral unit.

Note 4: Wherever BEE Star marked devices (lamps, fans, etc.) are available, they shall be preferred. However, makes shall be restricted to the above only.

13.0 PANEL SPECS

1. Scope of work:

This specification covers Design, fabrication, supply, installation and commissioning of 01 no., 415 V AC, 50HZ indoor type panel with MCCBs as incomer and MCCBs as outgoing feeders, skid mounted ready for operation on being installed in a fixed position. The Panels shall be placed on a suitable RCC foundation to take the load of Panel.

2. Standards:

All components used in the manufacture of the Panels shall confirm to the relevant IEC/BIS standard specification and especially to the followings:

i. IS:13947-1993/IEC:60947 General arrangements for switchgear and control gear for voltage not exceeding 1000 V

ii. IS: 12063-1987/IEC:60529 Degrees of Protection provided by enclosures of electrical Equipment

iii. IS: 5/2004 Colour for ready mixed paints and enamel

iv. IS: 732/1989 Code of Practice for Electrical Wiring Installations

v. IS: 5039/1983 Distribution pillars for voltage not exceeding 1000 V

vi. IS/IEC: 127-1994 Miniature Fuses- Fuse Holders for Miniature Cartridge Fuse Links - Specification

vii. IS:2551-1982 Danger Notice Plates

viii. IEC:60664 Insulation co-ordination within low voltage system including clearance creepage distances for equipment

3. Technical Requirements:

3.1. Details of components: Type of Panel: Indoor Type

A. Incoming Panel Feeder & Instrument: 2 Nos.

I. 400A, MCCB:

Each Incomer panel shall have following:

- a) Rating: 4 pole, 400 A, minimum 36 kA, 50Hz, 415VAC
- b) Protection: Adjustable Thermal magnetic
- c) Each Incomer feeder of 400A shall be equipped with following:
 - i. Core balance current transformer(CBCT) with earth leakage relay (ELR) for providing Earth leakage protection ; Current Settings: 30mA to 30A; Time Settings: 0.15Sec to 5 Sec: 1set
 - ii. Digital Multifunction Meter, V+A+Hz+KW+PF+KWh+Max.Demand : 1 No.
 - iii. Current Transformer, 400/5, 15VA, Class 1 to IS: 2705, Cast resin type: 3 Nos
 - iv. MCCBs shall be actuated by a handle that clearly indicates the three position ON/ OFF/ TRIP.
 - v. LED for R, Y, B phases shall be provided showing availability of power : 3 Nos
 - vi. Moulded HRC Fuse Holders with HRC Fuses for control circuit protection : 3 Nos
 - vii. Pad locking arrangement in OFF position with pad lock

B. Outgoing Feeders:

I. 250A, MCCB - 1 nos

The Thermal MCCB shall have following specification

- a) Rating: 4 pole, 250 A, minimum 25kA, 50Hz, 415VAC
- b) Settings:
 - a. OverCurrent: $I_r=0.8$ to $1 \times I_n$;
 - b. Short Circuit: $I_m= 5$ to $10 \times I_r$;
- c. Instantaneous protection against short Circuit with fixed threshold $I_f=5kA$
- c) Digital Ammeter, 3 Phase with inbuilt selector switch with size 96×96 mm. : 1 Set
- d) Pad locking arrangement in OFF position with pad lock: 1no

II. 160 A,MCCB : 7 Nos

The Thermal based MCCB shall have following setting

- a) 4 pole, 160 A, minimum 25kA, 50Hz, 415VAC
- b) Settings:
 - i) Over-Current: $I_r= 0.8$ to $1 \times I_n$;
 - ii) Short Circuit: $I_m= 5$ to $10 \times I_r$;
 - iii) Instantaneous protection against short circuit with fixed threshold $I_f=5kA$
- c) Digital Ammeter, 3 Phase with inbuilt selector switch with size 96×96 mm. : 1 Set

C. Bus-bar:

The bus chamber shall be sheet steel clad having front and rear bolted covers and shall consist of 1 set TP & N electrolytic grade, high conductivity Aluminium bus-bars, conforming to BIS. Current rating of bus bar sections 800 A, suitable for 415 V AC, 50 Hz system. Neutral bar shall be of same size as phase bus. The bus-bar shall be insulated with heat shrinkable PVC sleeves, make Raychem RPG, equivalent reputed make and shall be supported at required intervals with non- hygroscopic, non-deteriorating, and non-inflammable SMC / FRP Supports having adequate mechanical strength and a high tracking resistance, to withstand short circuit fault levels up to 50 kA for 1 sec.

All risers and connections from bus bar shall be carried out with same material as the main bus bars of current rating as per rating of individual cubicle switch. To suit the stringent site conditions, the bus bar system shall be designed with generous clearance between phases than specified in the standards. Adequate non-hygroscopic insulating sheet barriers between the bus chambers and feeders shall be provided. The manufacturers prototype panel must have type test certificate from CPRI/equivalent testing lab of national reputed for short circuit withstand of 50kA for one second on minimum 2000Amps Bus Bars, Temperature rise test. A copy of the test certificate shall be enclosed with the offer.

All necessary interconnection shall be duly tested as per IS: 8623

D. Make & Specification:

The Make and Model No. of the components shall be as follows:

- a. Digital Multifunction Meter: Make: Schneider Power logic PM200 series/ HPL-Socomec (Diris A41)/ Siemens PAC3200/Secure

- b. Digital Ammeter with inbuilt selector switch: Make: Schneider electric/ HPL/ LT/ Siemens
- c. Current Transformer: Make: Kappa/ Precise Electrical/ Pragati Electrical/ Siemens/ L&T/ Schneider electric
- d. LED :Make: Binay/ Tecnic/ L&T/ Siemens
- e. HRC Fuses: Make: GE/ Siemens/ L&T/ Schneider/ Cooper Bussman
- f. MCCB Make:
 - i. Schneider Electric
 - ii. ABB
 - iii. Siemens India Ltd
 - iv. Legrand
- v) Indo Asian: Optium range
- vi) L&T
- g. Digital Earth leakage relay with CBCT Make:
 - i. Legrand:
 - ii. Schneider Electric (Merlin Gerin): Vigirex Earth Leakage Relay: RH 99
 - iii. GE: Type, RD6
 - iv. Prokdv's: Digital earth leakage relay: Model No.MPEL-02

14.0 Constructional Details:

1. General Requirements:

- i. Panel shall be self-supporting, Indoor Type, dust, vermin/rodent proof, suitable for placing on a suitable RCC foundation. Any left holes/cable entries shall be blocked by using detachable metallic sheets to prevent entry of rodent/reptiles.
- ii. The structure of Panel shall be made with 2mm thick CRCA sheet and (75x40x6) mm base channel as required.
- iii. Heavy duty Lifting hooks (4 No's heavy duty lifting hooks) shall be provided for lifting of Panel.
- iv. The door shall be in parts and shall have locking arrangement with special type Knob type key. Danger Plate fitted on both sides.
- v. For cooling of the component louver arrangement shall be made in the Panel
- vi. Panel shall have a heavy duty base framework. The frame design shall be such that the height between bottom cable entry plate and the connection hole of brought out link of incoming, outgoing MCCBs shall be minimum 450mm.
- vii. The entire sheet-work shall be given minimum nine tank anti-rust treatment as per IS and then powder coated in light grey shade no 631 as per IS:631.
- viii. The design should be as per IS-8623, 13947, 13703, 4237 and IEC-61439 and suitable for ambient-40°C (Max)/ 5°C (Min), humidity-95% (Max). All components used must be suitable for the environment as mentioned.
- ix. All hardware should be of high tensile steel & Zinc passivated. Size of spring washers & flat washers should be as per relevant IS for individual bolt.
- x. All the components shall be mounted on separate steel plate with necessary stiffeners or suitable channels so that all the components can be checked and replaced from front side after opening the door.
- xi. All items will be labelled using riveted engraved metallic or mica labels.
- xii. All incoming and outgoing cables shall enter the enclosure from bottom side. Bottom plate shall have individual detachable gland plates for all cables. These detachable plates shall be accessible and removable from inside. All cable entry plates shall have knockouts.

2 General Technical Requirements:

- i. All connection links between bus-bar and MCCBs & brought out links shall be made with rectangular sections of Aluminium conforming to IS 5082. Current rating of links shall be minimum 1.5 times (rating for unassembled sections) the device rating. Spreader bars supplied by MCCB manufacturer shall be used for all incoming and outgoing terminations for all MCCBs.
- ii. All control wiring shall be done with single core 2.5sqmm, FRLS PVC insulated, 1100v grade, IS approved stranded copper cable.
- iii. All control cable ends shall have crimped copper lugs for proper termination and ferrules for identification of wiring. All the control circuit wiring shall be connected with terminals blocks, ferrules for easy identification
- iv. All panel doors shall be earthed.
- v. No bimetallic joints shall be permitted in the links of connections.
- vi. Special non-deteriorating Neoprene rubber gaskets shall be provided at panel doors.

- vii. Sufficient space should be provided for proper glanding, dressing, connecting up and maintenance of all cables. Sufficient nos. of cable entry holes shall be provided in the bottom plate.
- viii. All items shall be duly fixed with zinc passivated high tension hard-wares. DIN channel shall be used for components having facility to mount on DIN channel.
- ix. All items of the Panel must be approved by ISI or IEC (with latest amendments) for performance and safety. 3 nos. fuse carrier and base of 16 Amp of SM type with 4 Amp HRC fuses and fuse link shall be provided for power supply of multifunction meter. The auxiliary power supply of multifunction meter shall be 230 VAC.
- x. Current transformer shall be cast resin type, with accuracy class 0.5 and suitable specification.
- xi.2 No's passivated heavy duty type nuts and bolts shall be provided for connection of earthing on two opposite side.
- xii. For all incoming and outgoing cable connection, brought out terminals shall be provided. Suitable size of single compression M.S cable gland of size mentioned in the point no.
- xiii. For all incoming and outgoing cables along with Panel suitable size of holes shall be made into detachable gland plate for incoming and outgoing feeders. The cable gland is to be supplied and fitted in the Panel by bidder as per requirement of incoming and outgoing feeders.
- xiv. The Panel shall have provision for,
 - a) Incoming cable entries: suitable for terminating 2nos 3.5×240 sqmm XLPE cable
 - b) Outgoing cable entries:
 - i) For 250 A MCCB: Entry hole terminating 1 no, 3.5×95 sqmm PVCA cable for each 250 A compartment
 - ii) For 160 A MCCB: Entry hole terminating 1 no, 4 x 70mmsq cable for each 160 A compartment

1. Name Plate and Marking:

5.1. Panel shall be provided with Aluminum /Stainless steel / Brass nameplate showing the following information indelibly marked in English:

- ¢ Manufacturer's Name
- ¢ OIL's Purchase Order No. & date
- ¢ Manufacturer's Serial Number
- ¢ Year of Manufacture
- ¢ Rated Voltage Rating
- ¢ No. of circuits (incoming & outgoing)
- ¢ Rated Current of incoming circuit
- ¢ Rated Current of outgoing circuit
- ¢ Degree of protection

5.2. Danger Notice Plates:

Danger Notice plate shall be provided at the front of the Panel using M5 hot dipped galvanized /stainless steel / brass fasteners not removable type / accessible from the front i.e. without opening the door / front cover.

15.0 Tests:

The following routine tests shall be carried out in accordance with the relevant IS/IEC standards:

A. Routine Tests:

The following routine tests shall be carried out at manufacturers' works during inspection:

- i) Overall Dimensions Checking.
- ii) Insulation Resistance Tests.
- iii) High Voltage Test at 2500 V, 50 Hz AC for one minute.
- iv) Functional Test and verification of continuity of protective circuits
- v) Verification of clearances & creepage distances

16.0 Test Certificates:

Copy of type test conducted on similar type panel by NABL accredited laboratories for the following shall be submitted with the offer.

- a) Short time current withstand test
- b) Temperature rise test

17.0 Drawing & Documents:

Drawings/Documents to be submitted along with the offer:

The following drawings & documents shall be prepared based on NIT's specifications and statutory requirements with complete BOM and shall be submitted with the bid:

- i. Completely filled-in technical parameters
- ii. SLD of Panel
- iii. Bill of Material (BOM)
- iv. A drawing of the Panel showing dimensional details
- iv. Type Test certificates for tests conducted earlier on similar equipment shall be furnished

18.0 Documents/drawings to be submitted for approval after the award of the order:

The following drawings & documents shall be submitted for approval: GA drawing, SLD, termination details, wiring diagram and complete bill of material of the Panel shall be submitted to OIL for approval within 45 days after placement of the order. The drawing shall be approved by OIL within 30 Days of submission of drawing. Delay in drawing approval due to error correction in drawings submitted will to be parties account. Any delay in submission of drawing approval shall be in parties account.

19.0 Documents/drawings to be submitted along with the supply

Four sets of the following documents shall be submitted with the supply

- i. Approved GA drawing showing all details, including constructional detail and component layout for panels
- ii. Approved SLD & Schematic Diagram
- iii. Technical specification of all equipment including Manual/Catalogue/installation instructions etc
- iv. Bill of Materials with technical details
- v. Routine, Acceptance & Type test certificates.
- vi. Guarantee/warranty Certificate
- vii. List of recommended spares with pricing and part no. for two years' operation

20.0 Warranty:

The goods/equipment shall be of best quality and workmanship. Panel and all its components shall be guaranteed for twelve (12) months from the date of commissioning against defects arising due to material, workmanship or design. The party shall agree to replace/repair the defective components at site at their cost during guarantee period.

III. GENERAL HEALTH, SAFETY & ENVIRONMENT (HSE) POINTS:

1. It will be solely the Contractor's responsibility to fulfill all the legal formalities with respect to the Health, Safety and Environmental aspects of the entire job (namely; the person employed by him, the equipment, the environment, etc.) under the jurisdiction of the district of that state where it is operating. . Ensure that all sub-contractors hired by him comply with the same requirement as the contractor himself and shall be liable for ensuring compliance all HSE laws by the sub or sub-sub-contractors.

2. Every person deployed by the contractor in a mine must wear safety gadgets to be provided by the contractor. The Contractor shall provide proper Personnel Protective Equipment as per the hazard identified and risk assessed for the job and conforming to statutory requirement and company PPE schedule. Safety appliances like protective footwear, Safety Helmet and Full Body harness has to be DGMS approved. Necessary supportive document shall have to be submitted as proof. If the Contractor fails to provide the safety items as mentioned above to the working personnel, the Contractor may apply to the Company (OIL) for providing the same. OIL will provide the safety items, if available. But in turn, OIL will recover the actual cost of the items by deducting from Contractor's Bill. However, it will be the Contractor's sole responsibility to ensure that the persons engaged by him in the mines use the proper PPE while at work. All the safety gears mentioned above are to be provided to the working personnel before commencement of the work.

3. The Contractor shall prepare written Safe Operating Procedure (SOP) for the work to be carried out, including an assessment of risk, wherever possible and safe methods to deal with it/them. The SOP should clearly state the risk arising to men, machineries & material from the mining operation / operations to be done by the contractor and how it is to be managed.

4. The contractor shall provide a copy of the SOP to the person designated by the mine owner who shall be supervising the contractor's work.

5. Keep an up to date SOP and provide a copy of changes to a person designated by the Mine Owner /Agent /Manager.
6. Contractor has to ensure that all work is carried out in accordance with the Statute and SOP and for the purpose he may deploy adequate qualified and competent personnel for the purpose of carrying out the job in a Contractor 1 Company SCC safe manner. For work of a specified scope/nature, he should develop and provide to the mine owner a site specific code of practice in line.
7. All persons deployed by the contractor for working in a mine must undergo Mines Vocational Training, initial medical examination, PME. They should be issued cards stating the name of the contractor and the work and its validity period, indicating status of MVT, IME & PME.
8. The contractor shall submit to DGMS returns indicating - Name of his firm, Registration number, Name and address of person heading the firm, Nature of work, type of deployment of work persons, Number of work persons deployed, how many work persons hold VT Certificate, how many work persons undergone IME and type of medical coverage given to the work persons.
9. The return shall be submitted quarterly (by 10th of April, July, October & January) for contracts of more than one year. However, for contracts of less than one year, returns shall be submitted monthly.
10. It will be entirely the responsibility of the Contractor/his Supervisor/representative to ensure strict adherence to all HSE measures and statutory rules during operation in OIL's installations and safety of workers engaged by him. The crew members will not refuse to follow any instruction given by company's Installation Manager / Safety Officer / Engineer / Official / Supervisor/Junior Engineer for safe operation.
11. Any compensation arising out of the job carried out by the Contractor whether related to pollution, Safety or Health will be paid by the contractor only.
12. Any compensation arising due to accident of the Contractor's personnel while carrying out the job, will be payable by the contractor.
13. The contractor shall have to report all incidents including near miss to Installation Manager / departmental representative of the concerned department of OIL.
14. The contractor has to keep a register of the persons employed by him/her. The contractor's supervisor shall take and maintain attendance of his men every day for the work, punctually.
15. If the company arranges any safety class / training for the working personnel at site (company employee, contractor worker, etc.) the contractor will not have any objection to any such training.
16. The health check-up of contractor's personnel is to be done by the contractor in authorized Health Centers as per OIL's requirement & proof of such test(s) is to be submitted to OIL. The frequency of periodic medical examinations should be every five years for the employees below 45 years of age and every three years for employees of 45 years of age and above.
17. To arrange daily tool box meeting and regular site safety meetings and maintain records.
18. Records of daily attendance, accident report etc. are to be maintained in Form B, E, J (as per Mines Rules 1955) by the contractor.
19. A contractor employee must, while at work, take reasonable care for the health and safety of people who are at the employee's place of work and who may be affected by the employee's act or omissions at work.
20. A contractor employee must, while at work, cooperate with his or her employer or other persons so far as is necessary to enable compliance with any requirement under the act or the regulations that is imposed in the interest of health, safety and welfare of the employee or any other person.

21. Contractor's arrangements for health and safety management shall be consistent with those for the mine owner.

22. In case Contractor is found non-compliant of HSE laws as required company will have the right for directing the contractor to take action to comply with the requirements, and for further non-compliance, the contractor will be penalized prevailing relevant Acts/Rules/Regulations.

23. When there is a significant risk to health, environment or safety of a person or place arising because of a non-compliance of HSE Measures Company will have the right to direct the contractor to cease work until the non-compliance is corrected.

24. The contractor should prevent the frequent change of his contractual employees as far as practicable.

25. The contractor should frame a mutually agreed bridging document between OIL & the contractor with roles and responsibilities clearly defined.

26. For any HSE matters not specified in the contract document, the contractor will abide the relevant and prevailing Acts/rules/regulations/ pertaining to Health, Safety and Environment.

IV. The Contractor shall deposit the PAN and GST registration number (if applicable, as per Statutory GST Regulations) as and when required by the Company. If the above are not available with the bidder, the bidder must apply for the same after signing of the Contract and submit the same within 45 days of signing the contract (or as and when advised by the Company, after 45 days of signing the contract). Moreover, the statutory guidelines of Goods and Service Tax (GST) shall be adhered to by the bidder

V. The bidder must provide the following minimum numbers of equipment in operational condition capable of providing uninterrupted services under the contract as and when required.

LIST OF MATERIALS & EQUIPMENTS TO BE SUPPLIED BY CONTRACTOR:

- | | |
|--------------------------------------|------------------|
| • Concrete Vibrator (Needle Type) | - 04 (four) nos. |
| • Sump Pump | - 02 (two) nos. |
| • Concrete Mixture Machine | - 02 (two) nos. |
| • Cube mould (150mm x 150mm x 150mm) | - 09 (nine) nos. |
| • Welding and cutting set | - 01 (one) no. |
| • Slump Cone | - 02 (two) nos. |

VI. A Hindrance Register shall be maintained in the enclosed Format to record all hindrances encountered during execution of works against the contract. The items of work affected due to any hindrance shall be clearly recorded in the Hindrance Register and the Engineer-in-charge of the Company as well as the site representative of the Contractor will sign on the register against the recorded hindrance. In case of encountering multiple hindrances simultaneously over a period of time affecting the same item or different items, the net period of hindrance will be worked out considering the overlapping period.

VII. Company reserves the right to initiate actions against the bidder / contractor during processing of tender and / or during continuation of the contract as per OIL's Banning Policy dated 6th Jan 2017 available at OIL's website.

VIII. Defect liability period shall be 6 months beyond the date of completion of works as certified by Engineer-In-Charge. During defect liability period, all corrective works shall be carried out entirely at Contractor's own expenses. If such corrective works are not carried out within a reasonable time, the Company, at its discretion, may have such remedial works carried out by other agencies and charge the cost thereof to the Contractor. This amount shall be deducted from contractor's bill/ Retention money/ Performance security.

OIL INDIA LIMITED
(A Govt. of India Enterprise)
Contracts, Duliajan
WORKS CONTRACT
Schedule of company's Plants, Materials and Equipments

- A. SCHEDULE OF MATERIALS AVAILABLE AT THE COMPANY'S STORES/STOCK PILES for permanent incorporation in works and
- B. SCHEDULE OF COMPANY'S PLANTS AND EQUIPMENTS for use in the execution of work.

1) **MATERIALS** :- Cement will be supplied by company.

2) **PLANTS AND EQUIPMENT**: - Nil

NOTE:

1. All empty Cement bags must be returned to material's Godown,Duliajan failing which a sum of Rs.8.00(Rupees Eight) only per bag will be recovered from contractors bill.
2. The Contractor is to arrange transport of the above materials to site of work with proper safety.
3. If the materials listed above are not available suitable substitute will be provided by the Company and Contractor shall incorporate the same in the works without extra cost.
4. Containers must be returned to Company in good condition.
5. Plants and equipment if issued to Contractor must be under proper watch so that no part is pilfered. These must be handled only by Company's operators. Contractor shall be responsible for any loss or damage to these plants and equipment while these are under his/their custody.
6. Materials issued to Contractor must be under proper watch & ward so that no part is pilfered. If any pilferation takes place the matter will be referred to appropriate Govt. authorities for legal action as well as realization of the materials issued.
7. Cement issued to Contractor by the Company is meant only for the specific Company work relating to the Contract. However, if any quantity of Cement is left over from the quantities issued for any reason whatsoever, on the completion / cancellation / termination of the Contract the same shall have to be returned to the Company in full within one week of completion/cancellation of the work failing which the matter will be referred to appropriate Govt. authorities for legal action as well as realization of the Cement.
8. All other materials issue to the Contractor by the Company if subsequently found to be in excess of the actual requirement will have to be returned by the Contractor within two weeks of completion of the work failing which the cost of all such materials will be recovered from the Contactor at double the value of materials without any reference to him.

To,
CGM-CONTRACTS
OIL INDIA LIMITED
DULIAJAN-786602

SUB: SAFETY MEASURES

DESCRIPTION OF WORK/SERVICE:- Construction of New Office Building in Civil Engineering Department at Duliajan including internal electrification and supply of all materials except Cement.

Sir,

We hereby confirm that we have fully understood the safety measures to be adopted during execution of the above contract and that the same have been explained to us by the concerned authorities. We also give the following assurances.

- a) Only experienced and competent persons shall be engaged by us for carrying out work under the said contract.
- b) The names of the authorized persons who would be supervising the jobs on day to day basis from our end are the following:

i) _____
ii) _____
iii) _____

The above personnel are fully familiar with the nature of jobs assigned and safety precautions required.

- c) Due notice would be given for any change of personnel under item(b) above.
- d) We hereby accept the responsibility for the safety of all the personnel engaged by us and for the safety of the Company's personnel and property involved during the course of our working under this contract. We would ensure that all the provisions under the Oil Mines Regulations, 2017 and other safety rules related to execution of our work would be strictly followed by our personnel. Any violation pointed out by the Company's Engineers would be rectified forthwith or the work suspended till such time the rectification is completed by us and all expenditure towards this would be on our account.
- e) We confirm that all persons engaged by us would be provided with the necessary Safety Gears at our cost.
- f) All losses caused due to inadequate safety measures or lack of supervision on our part would be fully compensated by us and the Company will not be responsible for any lapses on our part in this regard.
- g) We shall abide by the HSE (Health Safety & Environment) points mentioned in SCC.

(Seal)

Date_____

Yours Faithfully

M/s_____

INTEGRITY PACT

Between

Oil India Limited (OIL) hereinafter referred to as "The Principal"

And

(Name of the bidder).....hereinafter referred to as "The Bidder/Contractor"

Preamble:

The Principal intends to award, under laid down organizational procedures, contract/s for **Construction of New Office Building in Civil Engineering Department at Duliajan including internal electrification and supply of all materials except Cement**. The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organisation "Transparency International" (TI). Following TI's national and international experience, the Principal will appoint an external independent Monitor who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal

(1) The Principal commits itself to take all measures necessary to prevent Corruption and to observe the following principles:-

- I. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to.
- II. The Principal will, during the tender process treat all Bidders with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidders the same information and will not provide to any Bidder confidential/ additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.
- III. The Principal will exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder/Contractor

(1) The Bidder/Contractor commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

- I. The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or immaterial benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- II. The Bidder/Contractor will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.
- III. The Bidder/Contractor will not commit any offence under the relevant anticorruption Laws of India; further the Bidder/Contractor will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business

relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

- IV. The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- (2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- (3) The Bidder/Contractor signing Integrity Pact shall not approach the Courts while representing the matters to IEMs and he/she will await their decision in the matter.

Section 3 - Disqualification from tender process and exclusion from future Contracts

If the Bidder, before contract award has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or risibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

1. If the Bidder/Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is entitled also to exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressions within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.
2. The Bidder accepts and undertakes to respect and uphold the Principal's Absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
3. If the Bidder/Contractor can prove that he has restored/recouped the Damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.
4. A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.
5. Integrity Pact, in respect of a particular contract, shall be operative from the date Integrity Pact is signed by both the parties till the final completion of the contract **or as mentioned in Section 9- Pact Duration whichever is later**. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.

Section 4 - Compensation for Damages

1. If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to Earnest Money Deposit / Bid Security.
2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to Security Deposit / Performance Bank Guarantee.
3. The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage

or less damage than the amount or the liquidated damages, the Bidder/Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

Section 5 - Previous transgression

1. The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the TI approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 - Equal treatment of all Bidders/Contractor/Subcontractors

1. The Principal will enter into Pacts on identical terms with all bidders and contractors.
2. The Bidder / Contractor undertake(s) to procure from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the provisions laid down in this agreement/Pact by any of its sub-contractors/sub-vendors.
3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

**Section 7 - Criminal charges against violating
Bidders/Contractors/Subcontractors**

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor, which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

**Section 8 - External Independent Monitor/Monitors
(three in number depending on the size of the contract)
(to be decided by the Chairperson of the Principal)**

1. The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.
3. The Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/Contractor/Subcontractor with confidentiality.
4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the Independent External Monitor shall give an opportunity to the bidder / contractor to present its case before making its recommendations to the Principal.

6. The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.
7. If the Monitor has reported to the Chairperson of the Board a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
8. The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairperson of the Principal.

Section 10 - Other provisions

1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi. The Arbitration clause provided in the main tender document / contract shall not be applicable for any issue / dispute arising under Integrity Pact.
2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
3. If the Contractor is a partnership or a consortium, this agreement must be, signed by all partners or consortium members.
4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

For the Principal

for the Bidder/Contractor

Place: Duliajan.

Witness 1:

Date:

Witness 2:

	TENDER NO. : CDC9457P19: Construction of New Office Building in Civil Engineering Department at Duliajan including internal electrification and supply of all materials except Cement.					
	NAME OF THE FIRM:					
	VENDOR CODE:					
	PRICE BIDDING FORMAT				OIL's	
Sl no	Description of Work	Qty	UOM	Curr.	Rate	Total
	Group A SEC-A	A			D	X=A*D
10	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer-in - charge.1:3:6 or richer mix	50.64	M3	INR	978.56	49554.28
20	Demolishing R.C.C. work manually / by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge.	11.06	M3	INR	1427.59	15789.15
30	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to municipal dumping ground beyond 50 m initial lead, for all leads including all lifts involved.	100	M3	INR	114.50	11450.00
40	Demolishing brick work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge.In cement mortar	81.68	M3	INR	827.22	67567.33
50	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead: Of area 3 sq. metres and below	72	EA	INR	166.37	11978.64
60	Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead: Of sectional area 40 square centimetres and above.	7.5	M3	INR	1843.16	13823.70
70	Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in: Channels, angles, tees and flats	10000	KG	INR	1.01	10100.00
80	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead.	10000	KG	INR	2.50	25000.00
90	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.For thickness of tiles 10mm to 25mm	176.51	M2	INR	33.25	5868.96
100	Dismantling roofing including ridges, hips valleys and gutters etc., and stacking the material within 50 metres lead of:G.S. Sheet	1153.34	M2	INR	67.72	78104.18
110	Dismantling cement asbestos or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 metres lead.	520.56	M2	INR	23.39	12175.90
120	Dismantling aluminium / Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-Charge.	211.83	M2	INR	23.40	4956.82
130	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. All kinds of soil (Refer CPWD SOR 2016, Item No. 2.6.1)	711.36	M3	INR	122.56	87184.28
140	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m. (Refer CPWD SOR 2016, Item No. 2.25)	569.09	M3	INR	124.48	70840.32
150	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete. (Refer CPWD SOR 2016, Item No. 2.27)	286.5	M3	INR	1017.07	291390.56
160	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. Beyond 30 cm girth upto and including 60 cm girth (Refer CPWD SOR 2016, Item No. 2.33.1)	10	EA	INR	215.02	2150.20
170	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyrifos/ Lindane emulsifiable concentrate of 20% (Refer CPWD SOR 2016, Item No. 2.34.1)	282.21	L	INR	176.66	49855.22
180	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) : Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc.: With Chlorpyrifos/ Lindane E.C. 20% with 1% concentration (Refer CPWD SOR 2016, Item No. 2.35.2.1)	93.8	M	INR	23.64	2217.43
190	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) : Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor: With Chlorpyrifos/Lindane E.C. 20% with 1% concentration (Refer CPWD SOR 2016, Item No. 2.35.3.1)	485.1	M2	INR	133.49	64756.00
200	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth. (Refer CPWD SOR 2016, Item No. 4.17)	74.85	M2	INR	497.70	37252.85
210	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 12.5mm nominal size) (Refer CPWD SOR 2016, Item No. 4.10)	63.78	M2	INR	234.92	14983.20
220	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size). (Refer CPWD SOR 2016, Item No. 4.1.5)	21.56	M3	INR	3944.02	85033.07
230	Providing and Laying Brick Flat Soling (75mm thick) including grading the base and spreading 25mm thick sand bed at bottom and grouting soling with cement mortar (prop. 1:3) and carrying all materials from a distance of upto 30.00m.	559.95	M2	INR	559.45	313264.03
240	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size) (Refer CPWD SOR 2016, Item No. 4.1.3)	36.15	M3	INR	3814.54	137895.62
250	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level : 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size) (Refer CPWD SOR 2016, Item No. 5.1.2)	116.18	M3	INR	3972.25	461496.01
260	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement : 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) : 3 graded stone aggregate 20 mm nominal size). (Refer CPWD SOR 2016, Item No. 5.2.2)	68.69	M3	INR	4886.37	335644.76
270	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size). Refer CPWD SOR 2016, Item No. 5.3)	394.55	M3	INR	5133.19	2025300.11

280	Centering and shuttering including strutting, propping etc. and removal of form work for : Foundations, footings, bases for columns (Refer CPWD SOR 2016, Item No. 4.3.1)	573.11	M2	INR	196.52	112627.58
290	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Suspended floors, roofs, landings, balconies and access platform (Refer CPWD SOR 2016, Item No. 5.9.3)	1149.36	M2	INR	441.54	507488.41
300	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Lintels, beams, plinth beams, girders, bressumers and cantilevers (Refer CPWD SOR 2016, Item No. 5.9.5)	955.89	M2	INR	355.40	339723.31
310	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Columns, Pillars, Piers, Abutments, Posts and Struts (Refer CPWD SOR 2016, Item No. 5.9.6)	642.71	M2	INR	483.68	310865.97
320	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Weather shade, Chajjas, corbels etc., including edges (Refer CPWD SOR 2016, Item No. 5.9.19)	88.92	M2	INR	528.48	46992.44
330	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Stairs, (excluding landings) except spiral-staircases (Refer CPWD SOR 2016, Item No. 5.9.7)	124.05	M2	INR	428.87	53201.32
340	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Edges of slabs and breaks in floors and walls Under 20 cm wide (Refer CPWD SOR 2016, Item No. 5.9.16.1)	249.05	M	INR	123.01	30635.64
350	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) (Refer CPWD SOR 2016, Item No. 6.1.1)	57.4	M3	INR	7055.46	404983.40
360	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) (Refer CPWD SOR 2016, Item No. 6.4.1)	255.44	M3	INR	7892.95	2016175.15
370	12 mm cement plaster of mix : 1:4 (1 cement: 4 fine sand) (Refer CPWD SOR 2016, Item No. 13.1.1)	2237.12	M2	INR	142.40	318565.89
380	6 mm cement plaster of mix : 1:3 (1 cement : 3 fine sand) (Refer CPWD SOR 2016, Item No. 13.16.1)	2667.99	M2	INR	124.54	332271.47
390	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade: New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm) (Refer CPWD SOR 2016, Item No. 13.47.1)	1100.11	M2	INR	98.14	107964.80
400	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work (Refer CPWD SOR 2016, Item No. 13.60.1)	2422.36	M2	INR	85.99	208298.74
410	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre (Refer CPWD SOR 2016, Item No. 13.85.3)	2422.36	M2	INR	39.11	94738.50
420	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete. (Refer CPWD SOR 2016, Item No. 13.80)	3522.48	M2	INR	90.35	318256.07
430	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture (Refer CPWD SOR 2016, Item No. 13.62.1)	56.28	M2	INR	115.12	6478.95
440	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). Kiln seasoned and chemically treated hollock wood. (Refer CPWD SOR 2016, Item No. 9.1.3)	1.16	M3	INR	54644.53	63387.65
450	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws. (Refer CPWD SOR 2016, Item No. 9.20.2)	33.94	M2	INR	2288.01	77655.06
460	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters: 30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws. (Refer CPWD SOR 2016, Item No. 9.21.2)	19.12	M2	INR	1515.61	28978.46
470	French spirit polishing : Two or more coats on new works including a coat of wood filler (Refer CPWD SOR 2016, Item No. 13.68.1).	67.88	M2	INR	231.85	15737.98
480	Applying priming coat: With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood) (Refer CPWD SOR 2016, Item No. 13.50.1)	38	M2	INR	35.88	1363.44
490	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications : Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @0.75 ltr/10 sqm of approved brand and manufacture (Refer CPWD SOR 2016, Item No. 13.48.2)	76.24	M2	INR	90.36	6889.05
500	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 600x600 mm. (Refer CPWD SOR 2016, Item No. 11.41.2)	857.22	M2	INR	1008.79	864754.96
510	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigment etc., complete. (Refer CPWD SOR 2016, Item No. 11.37)	57.34	M2	INR	599.30	34363.86
520	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete. (Refer CPWD SOR 2016, Item No. 11.36).	338.5	M2	INR	670.42	226937.17
530	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joint with white cement & matching pigments etc. complete. Size of Tile 600x600 mm. (Refer CPWD SOR 2016, Item No. 11.46.2)	49.76	M2	INR	1041.30	51815.09
540	Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete. (Refer CPWD SOR 2016, Item No. 17.78)	5	EA	INR	9513.59	47567.95
550	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. (Refer CPWD SOR 2016, Item No. 17.1.1)	1	EA	INR	3594.35	3594.35
560	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm or 340x410x265 mm sizes respectively. (Refer CPWD SOR 2016, Item No. 17.23)	8	EA	INR	946.10	7568.80
570	Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet : 250x125x25 mm (Refer CPWD SOR 2016, Item No. 17.17.2)	8	PAA	INR	166.92	1335.36

580	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps (Refer CPWD SOR 2016, Item No. 17.7.1)	9	EA	INR	2291.29	20621.61
590	Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings. (Refer CPWD SOR 2016, Item No. 17.8)	9	EA	INR	926.51	8338.59
600	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete. (Refer CPWD SOR 2016, Item No. 17.31)	2	EA	INR	817.99	1635.98
610	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing : Rectangular shape 1500x450 mm (Refer CPWD SOR 2016, Item No. 17.32.4)	3	EA	INR	1292.14	3876.42
620	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete. (Refer CPWD SOR 2016, Item No. 17.33)	9	EA	INR	571.31	5141.79
630	Providing, fitting and fixing CP towel rail complete as directed and specified. Jaquar make -Continental 600mm (Cat.No. ACN-1111N) (Refer APWD 13-14, Item No. 1.24.(a) (ii))	7	EA	INR	1202.52	8417.64
640	Providing fitting fixing Hand faucet for WC, make jaquar (code-ALD:573) or equivalent with 450mm long braided hoses,make jaquar material code (ALD-8058)or equivalent as directed and specified. Refer Contract no. 6107899, line item no 98 with 8% escalation)	6	EA	INR	2179.64	13077.84
650	Providing and fixing toilet paper holder : C.P. Brass (Refer CPWD SOR 2016, Item No. 17.34.1)	6	EA	INR	381.77	2290.62
660	Providing, fitting and fixing CP grating to the floors complete as specified and directed 125 dia. (Refer APWD 13-14, Item No. 1.42 (iii))	10	EA	INR	244.93	2449.30
670	Providing, fitting and fixing CP soap tray / soap dish complete as directed and specified. Jaquar make - Continental (Cat.No.ACN-1331N) (Refer APWD 13-14, Item No. 1.22. (i) (a))	13	EA	INR	655.52	8521.76
680	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms. 15 mm nominal bore (Refer CPWD SOR 2016, Item No. 18.51.1)	6	EA	INR	467.92	2807.52
690	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. 15 mm nominal bore (Refer CPWD SOR 2016, Item No. 18.52.1)	23	EA	INR	518.63	11928.49
700	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall : 20 mm dia nominal bore (Refer CPWD SOR 2016, Item No. 18.11.2)	59.43	M	INR	317.93	18894.58
710	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall : 15 mm dia nominal bore (Refer CPWD SOR 2016, Item No. 18.11.1)	58.5	M	INR	288.80	16894.80
720	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. 25 mm dia nominal bore (Refer CPWD SOR 2016, Item No. 18.12.3)	100	M	INR	199.47	19947.00
730	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete : 25 to 40 mm nominal bore (Refer CPWD SOR 2016, Item No. 18.13.1)	10	EA	INR	428.21	4282.10
740	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) : 15 mm nominal bore (refer CPWD SOR 2016, Item No. 18.46.1)	10	EA	INR	158.26	1582.60
750	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) : 20mm nominal bore (Refer CPWD SOR 2016, Item No. 18.46.2)	10	EA	INR	180.33	1803.30
760	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) : 25 mm nominal bore (Refer CPWD SOR 2016, Item No.18.46.3)	10	EA	INR	213.43	2134.30
770	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, (i) Single socketed pipes. 75 mm diameter (Refer CPWD SOR 2016, Item No.12.41.1)	50	M	INR	147.43	7371.50
780	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, (i) Single socketed pipes. 110 mm diameter (Refer CPWD SOR 2016, Item No. 12.41.2)	100	M	INR	231.99	23199.00
790	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Coupler 75 mm (Refer CPWD SOR 2016, Item No. 12.42.1.1)	10	EA	INR	61.69	616.90
800	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Coupler 110 mm (Refer CPWD SOR 2016, Item No. 12.42.1.2)	10	EA	INR	97.53	975.30
810	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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 pushfit Coupler 75 mm (Refer CPWD SOR 2016, Item No. 12.42.2.1)	10	EA	INR	61.69	616.90
820	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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 pushfit Coupler 110 mm (Refer CPWD SOR 2016, Item No. 12.42.2.2)	10	EA	INR	89.80	898.00
830	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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 tee with door 75x75x75 mm (Refer CPWD SOR 2016, Item No. 12.42.3.1)	10	EA	INR	115.43	1154.30
840	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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 tee with door 110x110x110 mm (Refer CPWD SOR 2016, Item No. 12.42.3.2)	10	EA	INR	172.46	1724.60
850	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Bend 87.5° 75 mm bend (Refer CPWD SOR 2016, Item No. 12.42.5.1)	10	EA	INR	72.73	727.30
860	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Bend 87.5° 110 mm bend (Refer CPWD SOR 2016, Item No. 12.42.5.2)	10	EA	INR	107.45	1074.50
870	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Shoe (Plain) 75 mm Shoe (Refer CPWD SOR 2016, Item No. 12.42.6.1)	10	EA	INR	62.80	628.00
880	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for 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. Shoe (Plain) 110mm Shoe (Refer CPWD SOR 2016, Item No. 12.42.6.2)	10	EA	INR	93.11	931.10

890	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 spacing 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 on 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 : Fully Perforated Gypsum Plaster Board of size 1200 x 2400x12.5 mm having approx. 15 % perforated area with perforation size and pattern as approved by the Engineer-in-charge and as per manufacturer's specification, with all 4 side tapered and backed by acoustical tissue with NRC value not less than 0.60 (Refer CPWD SOR 2016, Item No. 12.45.4)	971.02	M2	INR	1120.00	1087542.40
900	Providing and fixing 2nd class teak wood plain lining tongued and grooved, including wooden plugs complete with necessary screws and priming coat on unexposed surface. 25 mm thick (Refer CPWD SOR 2016, Item No. 9.34.2)	321.95	M2	INR	2890.88	930718.82
910	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate (Refer CPWD SOR 2016, Item No. 11.3.1)	554.32	M2	INR	273.45	151578.80
920	Providing and fixing stainless steel (Grade 304) railing 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, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.). (Refer CPWD SOR 2016, Item No. 10.28)	993	KG	INR	455.03	451844.79
930	Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12- 6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthened clear float glass 6mm thick, spacer tube 12mm wide, desiccants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor. (Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.26.2) For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm. (i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement. (Refer CPWD SOR 2016, Item No. 25.3)	99.43	M2	INR	3544.18	352397.82
940	Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as per IS 875 (Part-III). The Suspended System held with Spider Fittings of SS-316 Grade Steel of approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS- 316 Grade Stainless steel Spider & bolt assembly with laminated glass fins 21 mm thick. The Glass fins and glass panel assembly shall be connected to Slab/beams by means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of approved make, Teflon/ nylon bushes and separators to prevent bi-metallic contacts, all complete to perform as per specification and approved drawings. The complete system to be designed to accommodate thermal expansion & seismic movements etc. The joints between glass panels (6 to 8 mm) and gaps at the perimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water proof & dust proof. The rate shall include all design, Engineering and shop drawing including approval from structural designer, labour, T&P, scaffolding, other incidental charges including wastage, enabling temporary services all fitting fixers nut bolts, washer, Buffer plates, fastener, anchors, SS channel laminated glass etc.all complete. For the purpose of payment, actual elevation area of Glazing including thickness of joints and the portion of Glass panel inside the SS channel shall be measured. (Refer CPWD SOR 2016, Item No. 25.8)	11.452	M2	INR	6582.12	75378.44
950	Providing and supplying Spandrel Glass Panels comprising of 6 mm thick heat strengthened monolithic float glass of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade so as to match the colour and shade of the IGUs in the vision panels etc., all complete for the required performances as specified, as per the Architectural drawings, as per the approved shop drawings, as specified, and as directed by the Engineer- in- Charge. For payment, only the actual area of glass on face # 1 of the glass panels (but excluding the area of grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm. (Payment for fixing of Spandrel Glass Panels in the curtain glazing is included in cost of relevant Item*).-(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 K etc. . The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement. (Refer CPWD SOR 2016, Item No. 25.6)	58.8	M2	INR	2658.77	156335.68
960	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately). (Refer CPWD SOR 2016, Item No. 21.18)	27.027	M2	INR	4442.96	120079.88

970	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) : 21.1.1 For fixed portion 21.1.1.1 Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15) (Refer CPWD SOR 2016, Item No. 21.1.1.1)	500	KG	INR	346.32	173160.00
980	Marble stone flooring with 18 mm thick marble stone, as per sample of marble approved by Engineer-in-charge, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete with : Raj Nagar plain. (Refer CPWD SOR 2016, Item No. 11.23.2)	120.56	M2	INR	1390.01	167579.61
990	Providing & fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws etc. complete. Single rubber stopper. (Refer CPWD SOR 2016, Item No. 9.101.2)	30	NO	INR	36.57	1097.10
1000	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. (Refer CPWD SOR 2016, Item No. 9.84)	30	NO	INR	378.27	11348.10
1010	Providing & fixing chromium plated brass 100mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality). (Refer CPWD SOR 2016, Item No. 9.88)	30	NO	INR	669.87	20096.10
1020	Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately). Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Two track two panels sliding window made of (small series) frame 52 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window upto 1.75 sqm). (Refer CPWD SOR 2016, Item No. 9.147D.1)	69	M2	INR	5592.56	385886.64
1030	Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately). Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm). (Refer CPWD SOR 2016, Item No. 9.147D.2)	10.5	M2	INR	7384.37	77535.89
1040	Providing and fixing factory made uPVC white colour sliding glazed window above 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads, uPVC extruded interlocks and uPVC extruded Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle on one side of extreme panel along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) touch lock with hook (if required for wire mesh panel), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately). Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Two track four panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 4.00 sqm upto 8.00 sqm). (Refer CPWD SOR 2016, Item No. 9.147E.2)	12.6	M2	INR	4912.74	61900.52

1050	Providing and fixing factory made uPVC white colour fixed glazed windows/ventilators comprising of uPVC multi-chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately). Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Fixed window / ventilator made of (small series) frame 47 x 50 mm & mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area upto 0.75 sqm.) (Refer CPWD SOR 2016, Item No. 9.147B.1)	11.94	M2	INR	5394.15	64406.15
1060	Providing and fixing factory made uPVC white colour casement/casement cum fixed glazed windows comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, stainless steel (SS 304 grade) friction hinges, zinc alloy (white powder coated) casement handles, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately) Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Casement window single panel with S.S. friction hinges (300 x 19 x 1.9 mm), made of (small series) frame 47 x 50 mm & sash 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glass pane glazing bead of appropriate dimension. (Area of window upto 0.75 sqm.) (Refer CPWD SOR 2016, Item No. 9.147A.1)	0.75	M2	INR	7777.18	5832.89
1070	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 4.0 mm thickness. (Refer CPWD SOR 2016, Item No. 21.3.1)	104.79	M2	INR	728.94	76385.62
1080	Providing and fixing plain frosted glass of ordinary glazing quality bedded in putty and fixed with/without wooden bidding including necessary cutting and glass to be required sized (payment for woodenbead shall be made separately): 5 mm thick. (Refer APWD SOR 13-14, Item No. 16.2)	85.06	M2	INR	815.71	69384.29
1090	Extra for providing frosted glass panes 4 mm thick instead of ordinary float glass panes 4 mm thick in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured). (Refer CPWD SOR 2016, Item No. 9.12)	107.16	M2	INR	70.62	7567.64
1100	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment). (Refer CPWD SOR 2016, Item No. 21.17)	104.79	KG	INR	397.40	41643.55
1110	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete. (Refer CPWD SOR 2016, Item No. 10.17)	57	EA	INR	110.81	6316.17
1120	Erecting asbestos sheet roof or wall on plane apex with all accessories complete (FLARE wall/ sound barrier wall).	202.5	M2	INR	51.85	10499.63
1130	Fixing second hand pipe post 75mm to 100mm dia. in correct plumb with cement concrete in prop. (1:3:6) base of 30cm x 30cm x 45cm including earth cutting to required size and curing but excluding shuttering work. (C.C. work to be paid separately).	20	EA	INR	230.03	4600.60
1140	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete:	1000	KG	INR	21.19	21190.00
1150	Providing and fixing 12 mm thick frosted frameless toughened glass for office spaces with Godrej fittings all complete as per direction of Engineer-in-charge (extra for frosted glass to be paid separately).	87.92	M2	INR	4832.62	424883.95
1160	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more (Primary Producer) (Refer CPWD SOR 2016, Item No. 5.22.6)	64674.84	KG	INR	62.25	4026008.79
Group A SEC-B						
10	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. In all kinds of soil.	65.25	M3	INR	162.49	10602.47
20	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	65.25	M3	INR	124.48	8122.32
30	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m. All kinds of soil	53.46	M2	INR	13.68	731.33
40	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size). (Refer CPWD SOR 2016, Item No. 4.1.5)	5.19	M3	INR	3944.02	20469.46
50	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement : 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size). (Refer CPWD SOR 2016, Item No. 5.2.2)	2.07	M3	INR	4886.37	10114.79
60	Centering and shuttering including strutting, propping etc. and removal of form for all heights : Columns, Pillars, Piers, Abutments, Posts and Struts. (Refer CPWD SOR 2016, Item No. 5.9.6)	5.62	M2	INR	483.68	2718.28
70	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more. (Refer CPWD SOR 2016, Item No. 5.22.6)	156.3	KG	INR	62.25	9729.68
80	12 mm cement plaster of mix : 1:4 (1 cement: 4 fine sand) (Refer CPWD SOR 2016, Item No. 13.1.1)	45.66	M2	INR	142.40	6501.98

90	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 level in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand) (Refer CPWD SOR 2016, Item No. 6.4.1)	9.78	M3	INR	7892.95	77193.05
Group B SEC-A						
10	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 3 nos Single core 1.5 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 25mm size PVC conduit & accessories, suitable GI box as required.(Colour codes – Phase –R/Y/B; Neutral –Black & Earth- Green)). Concealed Point wiring includes laying of PVC conduit in the roof/Wall also.	200	EA	INR	1130.78	226156.00
20	Wiring for light plug point with 3 nos Single core 1.5 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 25mm size PVC conduit & accessories, etc as required.(Colour codes – Phase –R/Y/B; Neutral –Black & Earth- Green)).Concealed wiring includes laying of PVC conduit in the roof/Wall also.	700	M	INR	171.48	120036.00
30	Wiring for circuit/ sub main from MCB DB to desired Switch Board with 3 nos Single core 2.5 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 25mm size PVC conduit & accessories, (Colour codes : Phase –R/Y/B; Neutral –Black & Earth- Green)).Concealed circuit wiring includes laying of PVC conduit in the roof/Wall also.	800	M	INR	208.35	166680.00
40	Wiring for circuit/ sub main/Power wiring from MCB DB to desired Switch Board/power point with 3 nos Single core 4 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 25mm size PVC Conduit & accessories, (Colour codes : Phase –R/Y/B; Neutral –Black & Earth- Green). Concealed circuit wiring includes laying of PVC conduit in the roof/Wall also.	1000	M	INR	254.93	254930.00
50	Wiring for circuit/ sub main wiring from Main panel to DB, DB to MCB DB with 3 nos Single core 10 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 32mm size PVC conduit & accessories, (Colour codes: Phases - R/Y/B; Neutral –Black & 1 Nos Earth- Green)).Concealed sub main wiring includes laying of PVC conduit in the roof/Wall also.	400	M	INR	542.24	216896.00
60	Wiring for circuit/ sub main wiring from Main panel to DB, DB to MCB DB with 6 nos Single core 10 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 32mm size PVC conduit & accessories, (Colour codes: Phases - R/Y/B; Neutral –Black & 1 Nos Earth- Green)).Concealed sub main wiring includes laying of PVC conduit in the roof/Wall also.	150	M	INR	867.65	130147.50
70	Supply and Fixing of 3 Module type Switch Board Box shall be made out of steel sheet of min 1.20 mm thickness and complete finished box should be duly pretreated, zinc coated & passivated or made of GI sheet of 1.2mm thickness to accommodate specified number of electrical accessories and suitable for indoor electrical installation with provision for earthing terminal. Modular type Frame Plate with matching Cover Plate suitable for above Switch Board Box suitable to accommodate specified number of electrical accessories. Frame Plate shall be made out of polycarbonate.The configurations for the relevant plate are defined as under: A- Number of Rows: 1. B- Number of openings:3. C- Size of opening.: 1M Internal connection of wire is included in the item.	25	NO	INR	239.31	5982.75
80	Supply and Fixing of 8 Module type Switch Board. Box shall be made out of steel sheet of min 1.20 mm thickness and complete finished box should be duly pretreated, zinc coated & passivated or made of GI sheet of 1.2mm thickness to accommodate specified number of electrical accessories and suitable for indoor electrical installation with provision for earthing terminal.Frame Plate with matching Cover Plate suitable for above Switch Board Box suitable to accommodate specified number of electrical accessories. Frame Plate shall be made out of polycarbonate. The configurations for the relevant plate are defined as under: A- Number of Rows: 1 B- Number of openings:8 C- Size of opening 1M	40	NO	INR	429.10	17164.00
90	Supply and Fixing of 3 module GI box with modular plate and cover in front on recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, non-shuttered type for 250V,50Hz. supply and conforming to IS:1293/ 2005 with amendments No.1,2&3.The dimensions shall be as per annexure 'A of IS: 1293/2005 with amendments No.1,2&3 Note:-Dimensions and withdrawal force values for 2-pin sockets and 5-pin sockets shall be as per IS:1293.	140	NO	INR	377.08	52791.20
100	Supplying and fixing 3 module GI box with modular plate and cover in front on recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, non-shuttered type for 250V,50Hz. supply and conforming to IS:1293/ 2005 with amendments No.1,2&3.The dimensions shall be as per annexure 'A of IS: 1293/2005 with amendments No.1,2&3 Note:-Dimensions and withdrawal force values for 2-pin sockets and 5-pin sockets shall be as per IS:1293.	50	NO	INR	492.95	24647.50
110	Supplying and installation of recess type 20A metallic plug/socket DB complete with 20A Plug and Socket and 20 A DP RCBO,30mA sensitivity for AC.	30	NO	INR	5537.93	166137.90
120	Supply and fixing of 6 A Modular switch in the existing modular boxes.Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007	200	NO	INR	85.27	17054.00
130	Supply and fixing of Blank Plate	80	NO	INR	59.89	4791.20
140	Supplying and fixing 3 pin, 5 amp ceiling rose	10	NO	INR	62.10	621.00
150	Supply and fixing 1 Module step Fan Regulator 100W.Electronic Fan regulator step type (Capacitor Type) with minimum 4 steps(5 position) flush mounting type to IS:11037/1984(Reaffirm 2005) suitable for electric ceiling fan of voltage 230V, AC,50 Hz having wattage up to 100 Watts Max. The capacitor used shall be of standard make.	50	NO	INR	344.57	17228.50
160	Supply, Installation, testing and commissioning of 1400 mm sweep ceiling fan without modular step regulator, including wiring the down rods of standard length (upto 30 cm).Fan shall have double bearing with minimum air delivery shall be 230 CMM. Minimum Power input shall be 60 W .	50	NO	INR	2697.91	134895.50
170	Supply, Installation, testing and commissioning of Exhaust Fan, 300 mm sweep, 900±10% PM heavy duty metallic exhaust fan in the existing pening, including making the hole to suit the size of the above fan, making good the damage, connection, testing, commissioning etc. as required.Minimum power input shall be 50 W.Pre-lubricated double ball bearing for maintenance free running and conforming to IS 2312-1967 with latest amendment.	8	NO	INR	4264.27	34114.16

180	Supply,Installation, testing and commissioning of high performance suspended mounting, LM-79 certified luminaire & LM-80 certified LED with aluminium extruded channel & white powder coating. Fitting shall be with high translucent diffuser & white optics reflector for glare free light distribution with 40 +/-10% w system wattage, system efficacy >85 lm/W, THD <10% and PF is >0.9, with more than 1700 Lumen. Colour temperature shall be in between 5500 to 6500 K. The driver shall be external type and minimum burning hours shall be 40000 Hrs. The fitting shall be complete with all accessories etc., including supplying and fixing ball and socket arrangement, 2 no. down rods of 20 mm dia X 1.6 mm thick steel conduit upto 75 cm length, painting and wiring the down rods and connection with 1.5 sq. mm FR PVC insulated, copper conductor, three core cable and earthing etc. as required.	80	NO	INR	5404.33	432346.40
190	Supply,Installation, testing and commissioning of surface mounting Powder coated, Aluminum extrusion housing, IP20 Diffused Acrylic glass fitted 4ft LED Batten LM-79 certified luminaire & LM-80 certified LED complete with all mounting accessories. The product should have an even light distribution with system lumen greater than 1700 Lumen with max.20 +/-10% w system wattage. and CCT 6500K, CRI >80 and system efficacy >90 lm/W. Lifetime should be at least 40000 hours. The product should have an Electronic constant current driver with Open & Short circuit protection, reverse polarity protection and surge protection, PF >0.9, THD <10%.	35	NO	INR	1063.17	37210.95
200	Supply,Installation, testing and commissioning of surface mounting Powder coated, Aluminum extrusion housing, IP20 Diffused Acrylic glass fitted 2ft LED Batten LM-79 certified luminaire & LM-80 certified LED complete with all mounting accessories. The product should have an even light distribution with system lumen greater than 1300 Lumen with max.10 +/-10% w system wattage. and CCT 6500K, CRI >80 and system efficacy >90 lm/W. Lifetime should be at least 40000 hours. The product should have an Electronic constant current driver with Open & Short circuit protection, reverse polarity protection and surge protection, PF >0.9, THD <10%.	10	NO	INR	908.69	9086.90
210	Supply,Installation, testing and commissioning of recessed type 35 to 38 W LED CRCA powder coated luminaire complete with all mounting accessories for fixing in the POP type ceiling including supplying, fixing arrangement and connection with 3x1.5 sq. mm FR PVC insulated, copper conductor, single core cable and earthing etc. as required. Minimum output Lumen shall be 3200 and colour temperature shall be 5500K to 6500K. Driver shall be external. Efficacy shall be more than 90%. Power factor >0.9, THD <10%, IEC Compliant for safety.	30	NO	INR	6981.30	209439.00
220	Supply,Installation, testing and commissioning of recessed accent lighting luminaire (downlight) with matt finish reflector complete with green perform LED lamps with all accessories including fixing arrangement in the ceiling, wiring and connection with 1.5 mmsq FRLS single core copper conductor. Minimum lumen out shall be 1200 Lumen, CRI>80%, driver shall be constant current non integrated, Optics High Efficiency diffuser with more than 85% transmittance.	18	NO	INR	2567.60	46216.80
230	Supply,Installation,Testing & commissioning of 16 WAY SPN MCB DB with double door, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface, complete with 100 A tinned 12 way copper busbar, 12 way neutral busbar, 12 way earth bar, din bar, detachable gland plate, interconnections, phosphatized and powder painted including earthing etc. as required. DB shall have following as incomer :63 A RCBO, sensitivity 100mA -1 nos. Outgoings are 10 A MCB, C curve-6 nos, 20 A MCB, C curve- 6 nos. Make of RCBO, MCBs and box shall be of same make. All accessories like Lugs/Thimble etc. required for installation shall be supplied by Contractor.	12	NO	INR	11639.63	139675.56
240	Supply,Installation,Testing & commissioning 3 phase 8 way 63A MCB DB: 3 phase 8 way TPN prewired MCB DB with double door of following specification: DB shall be as per IS 8623, Suitable for Flush mounting and surface mounting application with 100 A copper busbar for each phase, with neutral bar, earth bar and cable ties for cable management, fully insulated busbar and neutral bar. DB shall have proper arrangement for door earthing and corner shields for better protection, Pan assembly for ease of installation, masking sheet, reversible doors, with provision for four pole RCBO as incomer and SP MCB as outgoing, supplied with wire set and MCBs. Wires shall be FRLS copper single core cables of sufficient capacity. DB shall have protection against mechanical impact, minimum protection index shall be IK 09 with acrylic door of IEC-62262 and Ingress protection of IP43. Limiting dimensions of DB shall be: front side length with door: 700 mm, breadth: 500 mm and depth 70 mm. Knockouts on the top shall be of following dimensions: 1 no., 32 mm dia; 8 nos., 25 mm dia. Knockouts on bottom shall be of following dimensions: 1 no., 32 mm dia; 8 nos., 25 mm dia. Knockouts on both sides shall be of following dimensions: 1 no. 32 mm dia and 2 nos., 25 mm dia. Part 1: DB shall have 63 A, 10kA 100 mA RCBO as incomer as per IS: 12460 with latest amendments, Part 2. Outgoing distribution in each phase shall consist of 8 nos. of MCB (4 nos. of 10 A and 4 nos. of 20 A MCB), all C curve, 10 KA capacity; total no. of MCBs in DB- 24 nos. All MCBs shall be as per IS/IEC 60947-2. All accessories like Lugs/Thimble etc. required for installation shall be supplied by Contractor.	4	NO	INR	20574.34	82297.36
250	Supply,Installation,Testing & commissioning 160 A, 8 W, VTPN MCCB DB Supply of 3 Phase, 8 WAY, vertical TPN MCCB DB, as per the following specifications: A. Incoming: a. 160 A Thermal adjustable MCCB: 1 no b. Rating: 4 pole, 160 A, 25kA, 50Hz, 415VAC c. Protection: Thermal and Magnetic Protection B. Outgoing Feeders: a. 63 A TP C curve MCB: 4nos b. 63 A SP C curve MCB: 12 nos c. All outgoing MCBs shall be 'C' curve, 240v AC, 10kA breaking capacity, with DMC housing, suitable for class-II tropicalisation (as per IEC) & approved by ISI or IEC. MCBs shall have integrated label holder, biconnect upper & lower terminals & air channels for low temperature rise. C. Bus bar: 250 A, Tinned Copper D. Constructional details of DB: DB shall be as per IS-8623 with latest amendment. DB shall have external earth terminal & mounting holes. Cable ties & wire leads for wiring incomer MCCB to respective phase & neutral buses shall be supplied and wired with single core 35 sqmm stranded copper cable with tinned copper lugs. Enclosure shall be IP-43& IK-09 with double door. DB shall have detachable cable entry gland plate on top and bottom side for keeping spare length of cables. All wires inside DB shall have ferrules for identification of circuit number. All unused openings shall be fitted with Blanking Plates. The DB shall be provided with 250 amp tinned copper bus bar for phase & neutral. Neutral & Earth bar shall be 8 way each & suitable for termination of wires with pin type cable lugs. All accessories like Gland/Lugs/Thimble etc. required for installation shall be supplied by Contractor.	2	NO	INR	39823.80	79647.60
260	Supplying and fixing metal box of 200 mm X 250 mm X 100 mm on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.	20	NO	INR	277.30	5546.00
270	Supplying and fixing metal box of 150 mm X 150 mm X 60 mm on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.	60	NO	INR	180.37	10822.20
280	Supplying and fixing of Mild steel hexagonal/Round fan box with 12mm Rod, 18G in the fan position.	50	NO	INR	203.11	10155.50
290	Supply and fixing of Earthing with G.I. earth pipe 3 metre long, 100 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.	2	EA	INR	5106.77	10213.54

300	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required.(Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	30	M	INR	71.49	2144.70
310	Supply and fixing of 3.5x70 mmsq PVCA 1100v grade, Heavy duty, PVC insulated, PVC sheathed, galvanised steel wire armoured cable with stranded, Aluminium conductor. Cable should be fixed with proper size of saddles at suitable interval. All core insulations shall be colour coded with red, yellow, blue and black colours. All insulated cores laid up together, covered with inner sheath of extruded black PVC compound, galvanised steel wire armour and black PVC outer sheath. Sufficient filler shall be used to give overall circular shape to the cable. The cable shall be approved by IS: 1554 with latest amendments. PVC insulation should be as per IS-5831. Armour should be as per IS-3975. Conductor should be as per IS-8130. Manufacturer's name, cable size, voltage grade, ISI mark should be marked on the cable outer sheath in permanent manner at regular interval. Sequential marking should be provided on the cable outer sheath at every one meter length for measurement during use.	200	M	INR	342.95	68590.00
320	Supply and fixing of 1x25 mmsq PVC 1100v grade, Heavy duty, PVC insulated, Black PVC sheathed cable with stranded, Aluminium conductor. The cable shall be approved by IS: 1554 with latest amendments. PVC insulation should be as per IS-5831. Manufacturer's name, cable size, voltage grade, ISI mark should be marked on the cable outer sheath in permanent manner at regular interval. Sequential marking should be provided on the cable outer sheath at every one meter length for measurement during use.	400	M	INR	40.85	16340.00
330	Supply, Installation, Testing and Commissioning of LT panel Specification of floor mounted MAIN INCOMER PANEL: Incomer panel shall be cubicle type, vermin proof, made with CRCA sheet with following specification: 2.0 PANEL COMPARTMENTS / SECTIONS: A) INCOMER SECTION: 2 (two) nos.400 Amps, Four Pole, Moulded Case Circuit Breaker: MCCB shall have thermal magnetic release of Breaking capacity minimum 36 kA with a rotary handle operating mechanism, with spreader links. One number Digital multifunction Panel meter to measure the electrical quantity voltage,current, power, frequency, energy consumption and power factor shall be provided. Meter shall be of minimum size 96 mm x96 mm x 65mm. Meter shall have a provision for recording cumulative energy. B) BUS CHAMBER: The bus chamber shall be sheet steel clad having front bolted covers and shall consist of 1 set TP & N electrolytic grade, high conductivity electrolytic E 91 E grade aluminium Bus Bars, conforming to IS: 5082. Current rating of bus bar sections shall be 800 Amps suitable for 415 V AC, 50 Hz system. Neutral bar shall be of same size as phase bus. The bus-bar shall be insulated with heat shrinkable PVC sleeves and shall be supported at required intervals with non- hygroscopic, non-deteriorating, and non inflammable SMC / FRP supports having adequate mechanical strength and a high tracking resistance, to withstand short circuit fault levels up to 50 kA for 1 sec. All risers and connections from bus bar shall be done with same material as the main bus bars of current rating as per rating of individual cubicle switch. C) OUT GOING SECTION i) 01 (one) No. 250 Amps, Four Pole, Moulded Case Circuit Breaker, minimum 25 kA with a rotary handle operating mechanism. ii) 07(seven) nos 160 Amps, four pole, MCCB, 25 KA with rotary handle D) CABLE CHAMBER / CABLE ALLEY: Suitable cable alleys shall be provided in between sections of the panel to drive the cables. Supports as required shall be provided along the cable alleys for supporting the cables / wires. All accessories like Gland/Lugs/Thimble etc .required for installation shall be supplied by Contractor.	1	NO	INR	444488.28	444488.28
					Total =	₹ 234,45,290.31
***Bidder's Quoted offer is			(percentage) above the Company's Internal Estimated Cost.			
*** The bidders should offer their percentage in figures upto two decimal places only. *** If bidder's quoted offer is at par with the Company's Internal Estimated Cost, select "at par" from the above dropdown list. *** If bidder's quoted offer is above Company's Internal Estimated Cost, fill the above blank cell with quoted percentage (upto 10% above on Company's I.E. cost).						
Please note that :-						
1.0	The bidder should not quote their rates for individual items. They should only fill up the percentage in the blank cell as advised above. The bids with overall rates quoted below at par (below 0.00 %) and above (+10%) of Company's internal estimated Cost will be rejected outright.					
2.0	The Rates of Company's Internal Estimate are exclusive of P.F. & GST. The Bidders must quote their rates excluding P.F. & GST.					
3.0	The Wages Component for the Work is (Civil Part) : 20.67 %					
4.0	The Contractor must quote considering the prevailing minimum labour wage rate for each day of work.					
5.0	Offers not furnished in the above format as per instruction given shall be summarily rejected.					

(To be typed on the letter head of the bidder)

To
CGM-CONTRACTS
OIL INDIA LIMITED
DULIAJAN

Dear Sirs,

Sub: UNDERTAKING/DECLARATION BY THE BIDDER (S) IN RESPECT OF TENDER NO. CDC

(To be submitted by the Bidders who are not covered under EPF&MP Act, 1952)

This is in connection with the Bid submitted by(Name of the Bidder) against Tenderfor(subject of the Tender). As per the conditions stipulated in Clause no.....(Name of the Provision/Covering Letter etc.), we/I ,being authorized on behalf of(Name of the Contractor) hereby confirm and undertake as follows;

- That our Firm/Company shall be responsible to comply with all the applicable labour laws in respect of the present Contract.
- That we are fully conversant with the applicable laws and confirm that our Firm/Company is not covered under the Employees Provident Funds and Misc. Provisions Act, 1952 and applicable Rules there under, and therefore I we have not obtained any registration or Provident Fund Code under the Act.
- That if, during the period of the present Contract, we/our Firm /Company comes within the coverage of the aforesaid Acts or any other statutes; we shall comply with the same and submit the necessary documents to OIL. We further confirm that we will indemnify OIL towards any future statutory compliances/claims raised from any corner including statutory authorities against the Labour engaged by our Firm/Company in the Contract.
- That in the event of any contravention towards the applicable laws found on our part in respect of the present Contract, we undertake to indemnify OIL and deposit the claims, if any.
- That we shall fulfill all the obligations arising from under the labour laws in force from time to time and keep OIL indemnified against any loss/liability arising out of failure of our avoiding the laws.

We, further agree and undertake that in case of any violation of the above undertaking, OIL shall be at liberty to take appropriate action against us in terms of the Tender including but not limited to termination of contract and debarment from future business with OIL.

I/We declare that the information given above is true and any misstatement or misrepresentation or suppression of facts in connection with the above undertaking may entail rejection of the bid and cancellation of contract, if awarded.

Yours faithfully,

1. Authorized Signatory _____
(BIDDER)

Place:-

Date:-

CERTIFICATE OF ANNUAL TURNOVER & NET WORTH

TO BE ISSUED BY PRACTISING **CHARTERED ACCOUNTANTS' FIRM** ON THEIR LETTER
HEAD

TO WHOM IT MAY CONCERN

This is to certify that the following financial positions extracted from the audited financial statements of
M/s..... (Name of the Bidder) for the last three (3) completed accounting years upto
.....(as the case may be) are correct.

YEAR	TURN OVER In INR (Rs.)	NET WORTH In INR (Rs.)

Place:

Date:

Seal:

Membership No. :

Registration Code. :

Signature

FORM OF BID SECURITY (BANK GUARANTEE FORMAT)

**To
M/s OIL INDIA LIMITED,
CONTRACTS DEPARTMENT,
DULIAJAN, ASSAM, INDIA, PIN-786602**

WHEREAS, (Name of Bidder) _____ (hereinafter called "the Bidder") has submitted their offer Dated _____ for the provision of certain services (hereinafter called "the Bid") against OIL INDIA LIMITED, Duliajan, Assam, India (hereinafter called the Company's) Tender No. _____ KNOW ALL MEN BY these presents that we (Name of Bank) _____ of (Name of Country) _____ having our registered office at _____ (hereinafter called "Bank") are bound unto the Company in the sum of (* _____) for which payment well and truly to be made to Company, the Bank binds itself, its successors and assignees by these presents.

SEALED with the said Bank this ____ day of _____ 20_____

THE CONDITIONS of these obligations are:

1. If the Bidder withdraws their Bid within its original/extended validity; or
2. The Bidder modifies/revises their bid suomoto; or
3. The Bidder does not accept the contract; or
4. The Bidder does not furnish Performance Security Deposit within the stipulated time as per tender/contract; or
5. If it is established that the Bidder has submitted fraudulent documents or has indulged into corrupt and fraudulent practice.

We undertake to pay to Company up to the above amount upon receipt of its first written demand (by way of letter/fax/cable), without Company having to substantiate its demand provided that in its demand Company will note that the amount claimed by it is due to it owing to the occurrence of any of the conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including the date (**--/--/--) and any demand in respect thereof should reach the Bank not later than the above date.

The details of the Issuing Bank and Controlling Bank are as under:

A. Issuing Bank:

BANK FAX NO:

BANK EMAIL ID:

BANK TELEPHONE NO.:

IFSC CODE OF THE BANK:

B. Controlling Office:

Address of the Controlling Office of the BG issuing Bank:

Name of the Contact Person at the Controlling Office with Mobile No. and e-mail address:

SIGNATURE AND SEAL OF THE GUARANTORS _____

Name of Bank & Address _____

Contd.... P/2

Witness _____

Address _____

(Signature, Name and Address)

Date: _____

Place: _____

- * The Bidder should insert the amount of the guarantee in words and figures.
- ** Date of expiry of Bank Guarantee should be minimum 30 days after the end of the validity period of the Bid/as specified in the Tender.

Note:

The Bank Guarantee issuing bank branch shall ensure the following:

- a) The Bank Guarantee issued by the bank shall be routed through SFMS platform as per the following details:
 - i) "MT 760/MT 760 COV" for issuance of bank guarantee.
 - ii) "MT 760/MT 767 COV" for amendment of bank guarantee.

The above message/intimation shall be sent through SFMS(indicating the Tender Number) by the BG issuing bank branch to Axis Bank, Duliajan Branch, IFS Code: UTIB0001129, Branch address: AXIS Bank Ltd., Duliajan Branch, Daily Bazar, Jyotinagar, Duliajan, District Dibrugarh, PIN: 786602.

- b) Bank Guarantee issued by a Scheduled Bank in India at the request of some other Non-Scheduled Bank of India shall not be acceptable.

FORM OF PERFORMANCE BANK GUARANTEE

**(TO BE FURNISHED BY THE CONTRACTOR IN CASE OF SUBMITTING PERFORMANCE SECURITY
IN THE FORM OF BANK GUARANTEE AFTER ISSUE OF LOA)**

To
M/s OIL INDIA LIMITED,
CONTRACTS DEPARTMENT
DULIAJAN, ASSAM, INDIA, PIN-786602

WHEREAS _____ (Name and address of Contractor) (hereinafter called "Contractor") had undertaken, in pursuance of Contract No. _____ to execute -----
----- (Brief Description of the Work) (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee as security for compliance with Contractor's obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee; NOW THEREFORE we hereby affirm that we are Guarantors on behalf of the Contractor, up to a total of (Amount of Guarantee in figures) _____ (in words _____), such amount being payable in the types and proportions of currencies in which the Contract price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of guarantee sum as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein. We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or the work to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way cease us from any liability under this guarantee, and we hereby waive notice of such change, addition or modification.

This guarantee is valid until the _____ day of _____.

The details of the Issuing Bank and Controlling Bank are as under:

A. Issuing Bank:

BANK FAX NO:

BANK EMAIL ID:

BANK TELEPHONE NO:

IFSC CODE OF THE BANK:

B. Controlling Office:

Address of the Controlling Office of the BG issuing Bank:

Name of the Contact Person at the Controlling Office with Mobile No. and e-mail address:

SIGNATURE AND SEAL OF THE GUARANTORS _____

Designation _____

Contd.... P/2

Page No. 2

Name of Bank _____

Address _____

Witness _____

Address _____

Date: _____

Place: _____

Note:

The Bank Guarantee issuing bank branch shall ensure the following:

- a) The Bank Guarantee issued by the bank shall be routed through SFMS platform as per the following details:
 - i) "MT 760/MT 760 COV" for issuance of bank guarantee.
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The above message/intimation shall be sent through SFMS (indicating the Contract Number) by the BG issuing bank branch to Axis Bank, Duliajan Branch, IFS Code: UTIB0001129, Branch address: AXIS Bank Ltd., Duliajan Branch, Daily Bazar, Jyotinagar, Duliajan, District Dibrugarh, PIN: 786602.

- b) Bank Guarantee issued by a Scheduled Bank in India at the request of some other Non-Scheduled Bank of India shall not be acceptable.

FORMAT FOR HINDRANCE REGISTER

Description of Project : Contract No. & Date :

Contractor's Name : Scheduled Completion Date :

Sl. No.	Nature of Hindrance	Items of work that could not be executed because of this hindrance	Date of start of hindrance	Date of Removal of hindrance	Period of hindrance	Overlapping Period, if any	Net hindrance days	Remarks
Signature of Contractor's Representative			Signature of Engineer-in-charge			Signature of HoD		

Annexure- VI

**Format of undertaking by Bidders towards submission of authentic information/documents
(To be typed on the letter head of the bidder)**

Ref. No _____

Date _____

Sub: Undertaking of authenticity of information/documents submitted

Ref: Your tender No. _____ Dated _____

To,
CGM - Contracts
Contracts Deptt,
OIL, Duliajan

Sir,

With reference to our quotation against your above-referred tender, we hereby undertake that no fraudulent information/documents have been submitted by us.

We take full responsibility for the submission of authentic information/documents against the above cited bid.

We also agree that, during any stage of the tender/contract agreement, in case any of the information/documents submitted by us are found to be false/forged/fraudulent, OIL has right to reject our bid at any stage including forfeiture of our EMD and/or PBG and/or cancel the award of contract and/or carry out any other penal action on us, as deemed fit.

Yours faithfully,

For (Name of the firm _____)

Signature of Authorised Signatory

Name :

Designation :

Phone No.

Place :

Date :

(Affix Seal of the Organization here, if applicable)