ESTATE & WORKS INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

E-TENDER DOCUMENT

For

"Electrical General Maintenance / Rewiring works at SRE Campus of IIT Roorkee."



Indian Institute of Technology Roorkee Roorkee-247667, Tel. No. 01332-28-5747/5386

TABLE OF CONTENTS

Section	Subject	Page No.
1	Notice inviting tender (invitation for bids)	3-4
2	Instructions for online bid submission	5-6
3	Information and instructions for bidders	7-8
4	General instructions (A to G)	9-13
5	Qualifying Information	14-15
6	General conditions of contract (A to E)	16-27
7	Special conditions of contract	28-30
8	Undertaking	31
9	Performance guarantee bond	32
10	Earnest Money Deposit Declaration (Annexure - B)	33
11	Approved Make List (Annexure-C)	34-35
12	Schedule of Quantities	36-54

ESTATE & WORKS INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

No. EW/DI/etender/Elec/General Maint./SRE/94

NOTICE INVITING TENDER

Dated: 19.02.2021

On behalf of BOG, I.I.T. Roorkee, online Tenders (Percentage Rate) are invited in two Bid systems (Technical and Financial) from competent, experienced and resourceful contractors having experience of working in Central / State Government, Public Sector Undertaking / Autonomous Organization of Central / State Government, Institutions of National and International repute, for the work detailed below:

Name of the Work	Estimated Cost	Completion Period (Months)
"Electrical General Maintenance / Rewiring works at SRE Campus of IIT Roorkee."	Rs. 44.70 Lac (Including GST)	12 Months

- 1. Interested eligible Bidders may obtain further information from IIT Roorkee website: www.iitr.ac.in/administration/pages/Tenders_EOI.html) or from Central Public Procurement Portal (CPPP) http://eprocure.gov.in/app.
- 2. Intending bidders are advised to visit IIT Roorkee website www.iitr.ac.in/administration/pages/Tenders EOI.html) and Central Public Procurement Portal (CPPP) http://eprocure.gov.in/app regularly till closing date of BID submission of tender for any corrigendum / addendum/ amendment.

Critical Data Sheet

Sr.	Name of Organization	Indian Institute of Technology Roorkee
No.		
1	Tender Type	Open
	(Open/Limited/EOI/Auction/Single)	
2	Tender Category (Services/Goods/Works)	Works
3	Type/Form of Contract (Work/Supply/ Auction/	Work Contract
	Service/ Buy/ Empanelment/ Sell)	
4	Product Category (Civil Works/Electrical	Electrical Works
	Works / Fleet Management / Computer	
	Systems)	
5	Date of Issue/Publishing Original Tender	20/02/2021 (17:30 Hrs.)
6	Document Download / Sale Start Date	20/02/2021 (17:30 Hrs.)
7	Pre-bid Meeting	NA
8	Seek Clarification Start Date	20/02/2021 (17:30 Hrs.)
9	Seek Clarification End Date	27/02/2021 (12:30 Hrs.)
10	Bid Submission Start Date	06/03/2021 (12:30 Hrs.)
11	Bid Submission Closing Date	13/03/2021 (12:30 Hrs.)
12	Bid Opening Date	15/03/2021 (12:30 Hrs.)
13	Tender Fee	Tender fee of Rs.1000.00 (non-refundable) in the form
		of RTGS/NEFT transfer to IIT Roorkee Account No:
		00000032685865515, State Bank of India, Branch - IIT
		Roorkee, IFSC Code: SBIN0001069, MICR Code:
		247002094 and copy of the deposit receipt shall be uploaded on e-tender.
14	EMD	Bidder shall upload a Bid Security Declaration as in
17	Divilo	Annexure - B.

15	Performance Guarantee (3%)	3% of awarded value shall be submitted in the form of
		Bankers Cheque / DD / FDR / Bank Guarantee in the
		name of Institute Engineer, IIT Roorkee after issue of
		Letter of Intent (LOI).
16	Security Deposit (5%)	5% of awarded value shall be submitted in the form of
		Banker's Cheque / DD / FDR / Bank Guarantee in the
		name of Institute Engineer, IIT Roorkee after issue of
		Letter of Intent (LOI).
17	No. of Covers (1/2/3/4)	02 (Cover-1 for Technical+ Cover-2 for Financial)
18	Bid Validity Days (180/120/90/60/30)	90 days (from last date of opening of tender)
19	Documents to be uploaded on CPP Portal	1) Affidavit (on Rs.10 non judicial stamp with
	(http://eprocure.gov.in/eprocure/app)(related	notarized) regarding establishment of
	to eligibility criteria) on or before due date of	proprietorship firm / partnership deed / letter of
	submission of tender.	incorporation for private ltd / ltd firm with written
		power of attorney (in case of bidder is owner, not required) of the authorized signatory.
		2) Self-certified copy of work orders along with work
		completion certificate as per eligibility criteria.
		3) Proof of online deposit of tender fee, Bid Security
		Declaration as in Annexure - B. For tender fee
		exemption, NSIC/MSME certificate comprising
		relevant category of work should be uploaded.
		4) Solvency certificate as per the tender document,
		Turnover certificate from CA, GST, PAN,
		Qualifying Information (Annexure-A), ESI (if
		applicable), EPF (if applicable).
		5) Notarized undertaking on Rs. 100 non judicial
		stamp paper as per the NIT.
		6) Bidder must have a Valid A-Class Electrical
		Contractor's License.
20	Price Bid	To be uploaded only on CPP Portal
		(http://eprocure.gov.in/eprocure/app) in excel sheet.
21	Address for communication.	Executive Engineer (E/M), Estate & Work
		Department, James Thomson Building, IIT
		Roorkee, Roorkee-247667 (India), Tel. No. 01332-
		285747 / 5386
22	Email Address	ee-electrical@iitr.ac.in /neeraj.aee2018@iitr.ac.in

Institute Engineer, E&W, IIT Roorkee

INSTRUCTIONS FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: https://eprocure.gov.in/eprocure/app.

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link "Online bidder Enrollment" on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 6) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 9) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 1.1 Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

INFORMATION AND INSTRUCTIONS TO BIDDERS

Estate & Works (E&W), IIT Roorkee invites the online Tender (Percentage Rate) from competent, experienced and resourceful contractors having experience of working in Central / State Government, Public Sector Undertaking / Autonomous Organization of Central / State Government, Institutions of National and International repute for the work of "Electrical General Maintenance / Rewiring works at SRE Campus of IIT Roorkee."

- 1.1 The work is estimated to cost as mentioned in the NIT. The estimate however, is given merely as a rough guide.
- 1.2 Intending bidder is eligible to submit the bid provided, if he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:

1.2.1 Criteria of eligibility for submission of bid documents:

- (a) Intending bidder should not be a joint venture (Self Certified copy of relevant documents clearly establishing the status of bidder to be uploaded in Cover-1).
- (b) Should have successfully completed works during last seven years ending last day of the month previous to the one in which applications are invited. The works completed up to previous day of last date of submission of tenders shall also be considered.

Three similar completed works costing not less than the amount equal to 40% of the estimated cost put to tender,

or

Two similar completed works costing not less than the amount equal to 60% of the estimated cost put to tender.

or

One similar completed work of aggregate cost not less than the amount equal to 80% of the estimated cost. (Self-Certified photocopy of work order along with work completion certificate to be uploaded as proof of eligibility criteria in Cover-1)

Work completion certificate should have been issued by an officer not less than the rank of Executive Engineer / equivalent and must contain name of the work, date of start, date of actual completion and amount of work executed.

Explanation: The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of receipt of applications for this tender.

Similar work means "Electrical General Maintenance / Rewiring works".

- (c) Average annual financial turn over on should be at least 50% of the estimated cost during last three consecutive financial years duly audited by a Chartered Accountant (Self Certified copy of certificate from CA to be uploaded in Cover-1). The year in which no turnover is shown would also be considered for working out the average.
- (d) Should have a solvency certificate of the amount equal to 40% of the estimated cost of the work issued by a scheduled bank during **last one year**. (Self certified copy of original solvency certificate to be uploaded in Cover-1).
- (e) Valid A-Class Electrical Contractor's License(for electrical works) (Certified copy of Electrical Safety License to be uploaded in Cover-1).
- 2. Agreement shall be drawn with the successful bidder on prescribed format.
- 3. The time allowed for carrying out the work will be as per the NIT from the date of start as defined in Award of Work or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in tender documents.
- 4. The site for the work is available / shall be made available for start of the work.
- 5. The Tender document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen / downloaded from IIT Roorkee website:

- <u>www.iitr.ac.in(https://www.iitr.ac.in/administration/pages/Tenders_EOI.html</u>) or from Central Public Procurement Portal (CPPP) <u>http://eprocure.gov.in/app</u>.
- 6. While submitting the bids, bidder can revise the rate, but before last date and time of submission of bids as notified. In this case, the last submitted bid before the last date and time will only be considered.
- 7. The scanned copies of documents as per critical data sheet shall be uploaded under Cover-1 on the e-tendering website.
- 8. Online Financial Bids submitted by intending bidders shall be opened only of those bidders, whose bid found technically qualified.
- 9. The bid submitted shall become invalid and cost of bid & tender processing fee shall not be refunded if: (i) the bidder is found ineligible. (ii) The bidder does not provide all the documents (including PAN No., GST registration etc.) as stipulated in the bid document.
- 10. Intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their Tender. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent upon any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Institute and local conditions and other factors having a bearing on the execution of the work. Cost of site visit shall be borne by the bidder.
- 11. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.
- 12. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the Tenders submitted by the bidders who resort to canvassing will be liable to rejection.
- 13. The bidder shall not be permitted to tender for works in the E&W, IIT Roorkee, if his near relative is posted as an officer in any capacity between the grades of Dean Infrastructure and Junior Engineer (both inclusive). Any breach of this condition by the bidder would render him liable to be removed from the Tendering process.
- 14. No Engineer of gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to act as a bidder within a period of one year after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the bidder or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the bidder's service.
- 15. The bid for the works shall remain open for acceptance for a period of 90 days from the date of opening of financial bids. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the Indian Institute of Technology Roorkee, then Indian Institute of Technology Roorkee, without prejudice to any other right or remedy, be at liberty to forfeit of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the re-bidding process of the work.
- 16. The notice inviting bid shall form part of the contract document. The successful bidder, on acceptance of his bid by the Accepting Authority, have to sign the contract consisting of "The Notice Inviting bid, all the documents including Special Conditions, General Specifications/ Particular Specifications and drawings, if any, forming part of the bid as submitted at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto within 15 days from the stipulated date of start of the work.

A: GENERAL INSTRUCTIONS

1. Scope of Tender.

- 1.1 Indian Institute of Technology Roorkee (referred to as Owner in these documents) invites Tender as defined in these documents and referred to as "the works" detailed in the table given in the Notice Inviting Tenders (NIT).
- 1.2 The successful Bidder shall complete the works within the completion date specified in the Notice Inviting Tenders (NIT).

2. Non Association / Relation

2.1 All bidders shall provide in the bid tender and Qualification Information, a statement that the Bidder is not associated, nor has been associated in the past, directly or indirectly, with the Indian Institute of Technology Roorkee or any other entity that has prepared the design, specifications, and other documents for the Project.

3. Qualification of the Bidder

- 3.1 All Bidders shall provide tender qualification information.
- 3.2 All Bidders shall include the following information by submitting relevant documents and certificate with their tenders: The Bidder must be registered with the GST Department and should submit the registration certificate (if applicable) of GST, ESI, EPF etc.

4. Cost of tendering

- 4.1 The Bidder shall bear all costs associated with the preparation and submission of his tender, and the Owner will in no case be responsible and liable for those costs.
- 4.2 The Bidder, at its own responsibility and risk is encouraged to visit and examine the Site of Work and its surroundings and obtain all information that may be necessary for preparing the tender. The costs of visiting the Site shall be at the Bidder's own expense.

B: DOCUMENTS INVITING TENDERS

5. Invitation: Tenders are hereby invited on behalf of Indian Institute of Technology Roorkee.

6. Contents of documents as mentioned in the relevant clauses mentioned:

The Bidder shall be deemed to have examined all instructions, forms, terms, and specifications in the Documents. Failure to furnish the information required in the Tender Document or submission of a Bid not substantially responsive to the Tender Documents in every respect will be at the Bidder's risk and may result in the rejection of the bid.

The several documents forming the contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and Special Conditions in preference to General Conditions.

In case of any discrepancy between the Schedule of Quantities, the specifications and/ or the drawings, given in the tender document the following order of preference shall be observed:

- 1. Description of Schedule of Quantities.
- 2. Particular Specification and Special condition, if any.
- 3. Drawings.
- 4. C. P. W. D. specifications/ E&W, IIT ROORKEE specification.
- 5. Latest edition Indian Standard Specifications of B. I. S.

7. Amendment of Tendering Documents

- 7.1 Before the deadline for submission of bids, the Indian Institute of Technology Roorkee may modify the Tender documents by issuing addenda/corrigendum.
- 7.2 Any addendum thus issued shall be part of the Tendering documents and shall be uploaded on e-Tendering website www.eprocure.gov.in and Institute website www.iitr.ac.in.
- 7.3 To give prospective Bidders reasonable time in which to take an addendum / corrigendum into account in preparing their bid, the IIT Roorkee may extend if necessary the deadline for submission of tenders.

C: PREPARATION OF DOCUMENT

- 8. Earnest Money Deposit (EMD): Bidder shall upload a Bid Security Declaration as in Annexure B.
- **9. Period of validity of bid:** The bids shall remain valid for a period of 90 days after the date of opening of bid. A bid valid for a shorter period shall be rejected by the Indian Institute of Technology Roorkee as non-responsive.

- **10.** Language of Bid: The document shall be written in English/Hindi language. The total amount should be written in the same language.
- 11. Document comprising the E-Tender: No page of this tenders document shall be removed and the set must be submitted as it is. Each page of the tenders document form is to be signed by the Bidder and must bear the Seal of the Company/Firm.

The tender submitted by the Bidder shall comprise as mentioned above in relevant sections.

12. Tender Prices

- 12.1 The contract shall be for the whole works as described in priced Schedule of Quantities submitted by the Bidder.
- 12.2 The tender submitted on behalf of firm shall be signed by a person who has the proper legal authority on behalf of the firm to enter into the contract; otherwise, the bid is liable to be rejected. Each page of the tender document and each drawing accompanying is required to be signed by the authorized person submitting the bid, with the company seal as the token of their having examined and acquainted themselves with the General conditions of contract, drawings, specifications, special conditions of contract etc. The forms of tender are to be filled in completely. Any bid with any of the documents not signed is liable to be rejected.
- 12.3 The notation R.O. written against items of BOQ means 'rate only" and the bidder is to quote only unit rate in such cases.
- 12.4 The Bidder shall fill in the percentage rate/in rates for items of the Works described in the Schedule of Quantities along with total bidding price. In case if the rates are not filled for any of the Items of Schedule of Quantities, in such cases the tender shall be summarily rejected. Failure to comply with either of these conditions will make the bid liable for rejection.
- 12.5 The work shall be carried out by the Bidder in a manner complying in all respect with the requirement of relevant bye-laws/orders of the Local/Municipal bodies and pay all fees and charges which may be leviable at his own cost. The completion/ occupancy certificates including clearance from fire committee or any other statutory obligation shall be arranged by the bidder. Any official fees shall be paid by the Owner. All other cost of liasoning shall be borne by the bidder.
- 12.6 **Taxes:** GST will be paid extras as notified by govt. from time to time. Bidders must include in their rates the cost of transportation / handling of materials to site. No tax exemption forms will be issued by the Owner.
- 12.7 Bidder should also take a Group Insurance Policy for his Workmen, Supervisors and Engineers working on site for an adequate insurance cover. Indian Institute of Technology Roorkee shall not be responsible for any accident or happening of any untoward/unforeseen event involving workmen, labour, supervisor or engineer or any person directly or indirectly associated with the execution of work. The insurance policy to be obtained by the successful Bidder must be comprehensive and shall cover all associated risks (known and unknown).
- 12.8 The rates quoted in the tender shall include cost of electrical power supply, water supply, cost of all materials, labour, telephone, rent and call charges, water and meter rent charges, temporary electric wiring / lighting for execution of work at site, hire for any tools and plants, shed for materials, marking out and clearing of site, transportation complete in all respects. The rates quoted in the tender shall be treated as rate for finally completing the item of work.
- 12.9 The quantities furnished in the schedule of quantities are only probable quantities and are liable to alterations, by omission, deductions or additions to any extent at the discretion of Indian Institute of Technology Roorkee. Payments will be regulated on the actual quantities of work done at accepted rates
- 12.10 Errors in the Schedule of Quantities shall be dealt with in the following manner:
 - i. In the event of a discrepancy between the rates quoted in words and the rates in figures, rate quoted in words shall be considered to be correct.
 - ii. In the event of an error occurring on account of arithmetical calculations the same shall be corrected according to rates written in words and quantities in B.O.Q.
 - iii. All the errors in totaling in the amount column and in carrying forward the totals shall be corrected. The tender total shall be accordingly amended. If the bidder doesn't accept the corrected amount the tender will be rejected.
- 12.11 The calculations made by the bidder should be based upon quantities of the items of work which are furnished in the Schedule of Quantities, but it must be clearly understood that the contract is not a

lump sum contract. The Owners do not in any way assure, represent or guarantee that the said probable quantities are correct or that the work would correspond thereto. The items of work irrespective of the quantities which may vary shall be carried out at the same accepted bidding etender rates and no escalation in the rates will be entertained whatsoever. Any item of work may be omitted from the schedule of quantities and may be awarded to another agency at any time / stage of the work.

12.12 The bidders must obtain for themselves on their own responsibility and their own expenses all the information which may be necessary, including risks, contingencies and other circumstances to enable them in making a proper bid and for entering into a contract, and must examine the drawings, specifications and conditions and inspect the site of the work, nature of the work, availability of power, water, shelter for workmen and all the matters pertaining thereto before submitting the bid. They can also get any clarifications required from the Owner, before tendering, by contacting them at their office during working hours.

13. Format and signing of Tender document

- 13.1 The bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. All pages of the tender where entries or amendments have been made shall be initialed by the person or persons signing the tender.
- 13.2 The tender shall contain no alterations or additions, except those to comply with instructions issued by the Owner, or as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid. ANY CONDITIONAL BID WILL BE SUMMARILY REJECTED.

D: MODE OF SUBMISSION OF BID DOCUMENT

14. Sealing and marking of bids.

- 14.1 The entire document to be put in cover-1 should be scanned and uploaded under cover-1 on the etendering website.
- 14.2 All the envelopes/covers needed to be properly sealed by the bidder and shall indicate the name and address of the bidder.
- 14.3 If the envelopes/covers is not sealed and marked as above, the Owner will assume no responsibility for the misplacement of the bid document.
- 14.4 Financial/price bid is to be uploaded online only & no hard copy to be submitted.
- **15. Deadline for submission of bid: -** Any bid will not be received by the Indian Institute of Technology Roorkee after the deadline of submission of bids.

E: TENDER OPENING AND EVALUATION

- **16. Tender opening:** The tender will be opened on the date and the place specified in the critical data sheet. In case of any unavoidable circumstances or unforeseen event on the specified date and time of tender opening, the bids will be opened at the appointed time and location on the next working day.
- 17. Clarification of Tenders: To assist in the examination, evaluation and comparison of bids, the Owner may, at his discretion, ask any Bidder for clarification of his bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by fax, but no change in the price or substance of the tendering shall be sought, offered or permitted.

18. Examination of Bids and Determination of Responsiveness:

- 18.1 Prior to the detailed evaluation of bids, the Owner will determine whether each bid
 - a) Meets the eligibility criteria defined
 - b) Has been properly signed and meets the requirements mentioned
 - c) is accompanied by the required securities and;
 - d) is responsive to the requirements of the tendering documents.
- 18.2 A responsive bid is one which conforms to all the terms, conditions and specifications of the tendering documents, without material deviation or reservation. A material deviation or reservation is one
 - a) Which affects in any substantial way the scope, quality, or performance of the works;
 - b) which limits in any substantial way, inconsistent with the tender documents, the Indian Institute of Technology Roorkee rights or the Bidders' obligations under the contract; or
 - c) Whose rectification would affect unfairly the competitive position of other Bidders presenting responsive bids.

18.3 If a bid is not responsive, it will be rejected by the Indian Institute of Technology Roorkee, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

19. Evaluation and Comparison of Bids:

- 19.1 The Owner along will evaluate and compare only the bids determined to be substantially responsive.
- 19.2 In evaluating the bids, the Owner will determine for each bid the evaluated bids Price by adjusting the bid. Price as follows:
 - a) Making any correction for errors; or
 - b) Making an appropriate adjustments for any other acceptable variations, deviations; and
 - c) Making appropriate adjustments to reflect discounts offered.
- 20. The Owner reserves the right to accept or reject any variation, deviation, or alternative offer and other factors which are in excess of the requirement of the tender.

F: AWARD OF TENDER

21. Award criteria:

- 21.1 The acceptance of bid will rest with the Owner, which does not bind itself to accept the lowest bid and reserves to itself the authority to reject completely / partially, any or all of the bid/s received without the assignment of a reason.
- 21.2 The owner reserves to itself the right of accepting the whole or any part of the Bid and the Bidder shall be bound to perform the same at the rate quoted.
- 21.3 The Owner reserves to itself the right of omission of any item of work from the awarded tender at any time / stage during the execution of work and awards the same to another agency / bidder.
- **22. Notification of award:** The successful Bidder will be issued a Letter of Intent (LOI) by the Owner. The issuance of LOI shall not constitute an award of work.
- 23. Performance Guarantee: Within ten (10) days of LOI the successful Bidder shall furnish the performance guarantee @ 3% of value of work in the form of DD/FDR/ Performance Bank Guarantee from Scheduled bank provided in the tender document. The PG must be valid two months beyond the work completion period. It may be further extended. The Performance guarantee shall be returned / refunded to the bidder on completion of the work and recording of the completion certificate. In case the bidder fails to deposit the said performance guarantee within the period as indicated, he shall be suspended for one year and shall not be eligible to bid for IIT Roorkee tenders from date of issue of suspension order.
- **24. Signing of contract form:** On the acceptance of LOI and Performance Bank Guarantee of the successful Bidder whose tender has been accepted in writing, the Indian Institute of Technology Roorkee will sign an agreement. Article of agreement shall be as per IIT Roorkee.

G: DURING EXECUTION

25. During Execution: The Bidder shall carry out all the works strictly in accordance with the drawing, details and instructions of the Owner. If in the opinion of the Owner, changes have to be made in the design, and they desire the bidder to carry out the same, the Bidder shall be bound to comply. The Owner decisions in such cases shall be final.

The Bidder is bound to carry out any items of work necessary for the completion of the job even though such items are not included in the schedule of quantities and rates. Schedule of instructions in respect of such additional items and their quantities with the prior consent from the Owner. Rates for such items of work will be approved by the Owner on the basis of Analysis of Rates which will be derived from actual prevailing market rates of similar item along with 15% as bidder's profit & overhead (or service charge as quoted by the bidder). The rates approved by the Owner in such cases will be final.

The Bidder shall get the quality of work done inspected for material and workmanship at different stages of execution as per instructions given by the Owner or their representative time to time. Any item of work done which is found not conforming to the Contract shall be rejected by the Owner. The decision of the Owner in such cases shall be final.

The Owner may instruct at any stage of execution for testing of samples of any material taken at random. The Owner will decide the testing laboratory / agency and the cost of testing including the expenses for

sending the samples to the laboratory / agency and receipt of test reports shall be borne by the Bidder. The material shall be rejected in case the test reports are not within the permissible limits.

The Bidder shall have to present the invoice for purchased material from the manufacturer or from the dealer along with the certificate from the manufacturer. In case material is found to be of substandard quality, the same shall be rejected by the Owner. The decision of the Owner in such cases shall be final. The Bidder shall not be entitled to any compensation for the Loss suffered by him on account of delays in commencing or executing the work whatever the cause of delay may be, including delays arising out of modifications to the work entrusted to him or in any subcontracts connected therewith or delays in awarding contracts for other trades of the project or in commencement or completion of such other works or in procuring Government controlled or other building materials for any other reasons whatsoever. The Owner shall not be liable for any sum besides the e-tender amount, subject to such variations as are provided for herein and as instructed by Owner. However, necessary time extension will be given if the delays are not attributed to the Bidder.

QUALIFYING INFORMATION (Annexure-A)

Please furnish the following information along with documentary evidence only in this format (as eligibility criteria)

1.	Name of the bidder	
2.	Legal Status of the bidder	
3.	Place of registration and registration of the	
	bidder	
4.	Year of establishment of the firm.	
5.	Permanent Address	
6.	Email id	
7.	Contact Numbers	
8.	Principal place of the registration	
9.	PAN No.	
10.	GST No.	
11.	EPF (if applicable)	
12.	ESI (if applicable)	
13.	EMD Declaration as per Annexure –B	
14.	Tender fee details	
15.	Solvency certificate details	

16. Average annual financial turnover during the last 3 years, ending 31st March of previous financial year, should not be less than 50% of the estimated cost. CA certificate be enclosed as documentary proof. Copies of balance sheets duly certified by CA to be submitted.

Sl. No.	Financial Year	Amount (in Lakhs)
1	2019-2020	
2	2018-2019	
3	2017-2018	

17. PROFORMA FOR LIST OF WORKS EXECUTED BY THE BIDDER DURING THE LAST 5 YEARS AND ABOVE

Sl. No	Name of work/ project with address	Name & postal address of the owner & contact person	Contract Value	Date of Start	Date of Completion	Actual Date of Completion

Note: Bidder may furnish the above information in separate sheet if the space is not sufficient.

Sl. No	Name of work/ project with address	Name & postal address of the owner & contact person	Published Value	Date of Start	Stipulated date of completion	Present Progress

Note: Bidder may furnish the above information in separate sheet if the space is not sufficient

19. DETAILS OF KEY PERSONNEL

Sl.	Name & Designation	Qualification	Experience	Nature of Works	Date from
No				Handled	which employed
					in your
					organization

Note: Bidder may furnish the above information in separate sheet if the space is not sufficient.

20. List of equipments, tools and tackles (in applicable)

GENERAL CONDITIONS OF CONTRACT(GCC)

A: GENERAL

1.0 Definitions:

- 1.1 In this contract, the following terms shall be interpreted as indicated:
 - a. "The Contract" means the agreement entered into between the Owner and the Bidder, as recorded in the contract form signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein.
 - b. "The Contract Value" means the amount payable to the Bidder under the contract for the full and proper performance of its contractual obligations.
 - c. "Contract Data" means any information provided in the tender document and agreed to by the Bidder.
 - d. "The Work" means all labour, materials, tools and plant, equipment including government taxes and transport that may be required in preparation of and for and in the full and entire execution and completion of "the Work".
 - e. "Services" means services ancillary to the execution of the work such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Bidder covered under the contract.
 - f. "GCC" mean the General Conditions of Contract contained in this section.
 - g. "SCC" means the Special Conditions of Contract.
 - h. "The Owner" means the Indian Institute of Technology Roorkee or its representative.
 - i. "The Owner" means the Owner/Project Management Consultant appointed by the Owner for preparing all the drawings, details and specifications of items required for the execution of the work and supervise and monitor the execution at site along with checking and verifying Bidder's bill. The Bidder shall offer the Engineer or any representative of Owner every facility and assistance for examining the works and materials. The Engineer or any representative of the Owner shall have power to give notice to the Bidder or to his staff, of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Owner. Such examinations shall not in any way exonerate the bidder from the obligations to remedy any defects which may be found to exist at any stage of the work or after the same is completed.
 - j. "The Bidder" means the individual or the firm executing the work.
 - k. "The Project Site" where applicable, means the place or places named in SCC.
 - 1. "Day" means calendar day.
 - m. "Engineer-in-charge (EIC)" means Executive Engineer (E/M).

2.0 Interpretation and Application

- 2.1 These general conditions shall apply to the extent that provisions in other parts of the contract do not supersede them.
- 2.2 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Owner will provide instructions clarifying queries about the Conditions of Contract.
- 2.3 If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended completion date are for the whole of the Works.

3.0 Standards

3.1 The works executed by the Bidder should be carried out in most professional manner, both as regards material and otherwise, in every respect, in strict accordance with the Technical Specifications. All materials and workmanship shall so far as procurable be of the respective kinds described in the priced schedule of quantities and/ or specifications and in accordance with the Owner' instructions, and the Bidder shall upon the request of the Owner, furnish them with all invoices, accounts; receipts and other vouchers to prove that the material procured complies therewith. When no applicable standard is

mentioned, the work shall be carried out as per the directions of the Owner. The Bidder shall at his own cost arrange for and/or carry out any test of materials which the Owner may require. In case of discrepancies in tender wording as regards the specifications of materials, workmanship etc., written instructions will supersede the tender wording unless otherwise mentioned.

- 3.2 The Owner in their absolute discretion from time to time shall issue further drawings and/ or written instructions, details, directions and explanations which are hereafter collectively referred to as "the Owner's instructions" in regard to: -
- a. The variation or modification of the design quality or quantity of works or the addition or omission or submission on any work.
- b. Any discrepancy in the drawings or between the schedule of quantities and / or drawings and /or specifications/ dimensions etc.
- c. The removal and / or re-execution of any works executed by the Bidder.
- d. The removal from the site of any materials brought thereon by the Bidder and the substitution of any other materials therefore / or rejection of the material brought on site.

4.0 Use of Contract Documents and Information

- 4.1 The Bidder shall not, without the Owners' prior written consent, disclose the contract or any provision thereof, or any specifications, plan, drawing, pattern, sample or information furnished by or on behalf of the Owner in connection therewith, to any person other than a person employed by the Bidder in performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.
- 4.2 The Bidder shall not, without the Owner's prior written consent make use of any document or information enumerated in Para 4.1 except for the purposes of performing the contract.
- 4.3 All documents included but not limited to contract agreement shall remain the property of the Owner and shall be returned (in all copies) to the Owner on completion of the Bidder's performance under the contract, if so required by the Owner.
- **5.0 Owner's Decisions:** Except where otherwise specifically stated, the Owner will decide contractual matters between the Owner and the Bidder, in the role of representing the Owner.
- **6.0 Performance Guarantee:** The proceeds of the performance guarantee shall be payable to the Owner as compensation for any loss or dues resulting from the Bidder's failure to complete its obligations under the contract.

7.0 Program and Reporting

- 7.1 The bidder shall furnish to the Indian Institute of Technology Roorkee a bar chart laying down weekly financial and physical targets to complete the project within stipulated time for approval within fifteen days from the date of receipt of notification of award. Weekly progress report shall be furnished to the owner showing the progress.
- 7.2 The bidder must submit every week the following information to the Owner in writing:
 - i. Number of men employed, trade wise;
 - ii. Progress achieved;
 - iii. Expected dates for completion of work;
 - iv. Any actual or potential delay in completion schedule.

8.0 Assignment and Sub-contracting

- 8.1 The whole of the works included in the Contract shall be executed by the bidder and the bidder shall not directly or indirectly transfer, assign or underlet the contract or any part, share or interest therein without the written consent of the Owner.
- 8.2 No sub-contracting shall relieve the Bidder from the full and entire responsibility of the Contract or from the active superintendence of the work during their progress.
- 9.0 Bidder to provide everything necessary for proper execution of work

- 9.1 The Bidder shall provide everything necessary for the proper execution of the works according to the intent and meaning of the drawings, priced schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from. If the Bidder finds any discrepancy therein he shall immediately and in writing refer the same to the Owner whose decision shall be final and binding. Further, if any sample(s) of material(s), fittings, fixtures or finished item(s), to be used in the construction work, has/have been called for from the bidder, no work related to it/these shall be executed unless the same has/ have been approved by the Owner failing which no payment shall be made to the bidder on this account. Any sample, duly approved by the Owner shall become part of the supply to be used in "the works".
- 9.2 IIT Roorkee will provide water and power supply at site free of cost for the entire work.
- 9.3 The Bidder shall supply fix and maintain at his cost, during the execution of any works, all the necessary power supply, water supply, centering, scaffolding, watching and lighting by night as well as by day, required not only for the proper execution but also for protection of the public and the safety of any adjacent roads, streets, pavements, walls houses, building and other erections, matters or things. The Bidder shall take down and remove any or all such centering, scaffolding, staging, planking, timbering, strutting, shoring pumping, fencing, hoarding, watching and lighting by night as well as by day, required not only for the proper execution but also for protection of the public and the safety of any adjacent roads, streets, pavements, walls houses, building and other erections matters or things. The bidder shall take down and remove any or all such centering, scaffolding, staging, planking, timbering, strutting, shoring etc. as occasion shall require or when ordered so to do so and shall fully reinstate and make good all matters and things disturbed during the execution of the works, to the satisfaction of the Owner.
- 9.4 Throughout the execution of the work, the Bidder or his representative duly authorized and fully responsible and technically conversant with the work under this agreement, acting on his behalf shall be available at the site for supervising the work. The Bidder shall make adequate arrangements for watchmen to guard the materials brought by them to the site and shall ensure the safety, breakage and any theft of materials fixed or unfixed by him. Any material, T & P brought to the site for bonafide use of the Project shall not be removed/ shifted from the site without the prior written permission of the Engineer/Owner.
- 9.5 The bidder has to provide at his cost leveling pipe, steel/ metallic tapes etc. required by the supervising staff of the Owner's/Owner' representative during execution of the work.
- 9.6 Whenever required by the Owner, the Bidder shall provide electrical drawings / details before execution of work and get them approved by the Owner.
- 9.7 Wherever the specification of any item indicates the usage of approved equivalent of any material, the Bidder shall get the sample of the equivalent material approved from the Owner before execution. The approval of the equivalent material is entirely at the discretion of the Owner.
- **10.0 Infrastructure:** For storage of materials, bidder has to provide at his own cost sufficient fenced and covered appropriate area on site for storage of above materials with lock and key arrangement. For arranging meetings suitable sized table and chairs shall be provided by Bidder. Temporary space shall be provided to the Bidder for construction of stores for storage of materials /site office/ labour hutments for the project period.
- 11.0 Site Establishment: The bidder shall provide all stores, workmen and materials. All materials likely to deteriorate in the open shall be stored under suitable cover. The security of the bidder's equipment and materials is his own responsibility. The Owner accepts no liability for loss or damage to the bidder's plant tools or materials. The materials issued to the bidder by the Owner will remain under the custody of bidder as a trustee. However, title on the same will remain with the Owner. The bidder will be responsible for loss or damage to such materials and shall preserve them in good working conditions as required for the contract and good construction practices till such time that they are incorporated in the works and erected, aligned and fully installed in position and handed over to the Owner. In case the Owner feels that arrangements made by the bidder are not adequate he shall so advice the bidder and the bidder shall promptly take corrective action. In case the bidder fails to take corrective action, Owner shall take such corrective actions and recover the cost thereof from the bidder's bills. Accounts of such material on completion of work shall be rendered and surplus material returned to the Owner as per instructions of Owner. The bidder shall clear away periodically or as instructed by Owner any rubbish, scrap materials, etc. and dump the same in the authorized dump sites notified by local authority/area indicated by the Owner. All construction materials shall be neatly stacked in an orderly manner as directed by the Owner and care shall be taken to allow proper access to

workmen and easy movement of men, vehicles, cranes and materials. The bidder shall maintain all the drawings carefully mounted on the board of appropriate size and well protected from the ravages of weather, termites and other insects. The bidder shall not permit the entry to the site of any person not directly connected/concerned with the work without first having obtained the written permission of Owner. The bidder shall submit a list of plants, equipments, tools, tackles, etc. which he will use, to perform the work. These tools, etc. shall not be removed from the site till the completion of job. A gate pass must be obtained from the Indian Institute of Technology Roorkee, chief proctor office, in order to remove from site any plant equipment, tools and materials. All items such as instructions and other pertinent data regarding erection/commissioning and maintenance should be typed and classified for transmittal in a manner approved by the Owner. For all employees of Owner, the bidder shall conform for no misconduct from any of his workforce; failure of this will be sufficient cause for removal of such person from the site.

12.0 Messing & Accommodation: The bidder will make his own arrangements for messing and accommodation. No accommodation and messing shall be provided by the Owner.

13.0 Procurement, Consumption and Storage of Materials

- 13.1 The bidder shall at his own expenses, provide all materials including cement & steel required for the works. Adequate stocks of all materials required for the work are to be maintained at site. No material (unless as provided elsewhere in this document) shall be supplied by the Owner.
- 13.2 All materials to be provided by the bidder shall be in conformity with the detailed specifications laid down in the contract and the bidder have to prove that the materials conform to the laid down specifications, if requested by the Indian Institute of Technology Roorkee.
- 13.3 All materials required for execution of work must be got approved by the site representative of the Owner before they are actually put to use. All facilities for prior inspection of materials and subsequent inspection of work by the Site Engineer must be made available.
- 13.4 The bidder shall, at his own expenses and without delay, supply to the Owner samples of materials proposed to be used in the work. The Owner shall within seven days of supply of samples, or within such further period as Owner may require and intimate the bidder in writing, whether samples are approved by Owner, or not. If samples are not approved, the bidder shall forthwith arrange to supply, for their approval, fresh samples complying with the specification laid down in the contract.
- 13.5 The Owner shall have full powers to require removal of any or all the materials brought to site by the bidder which are not in accordance with the contract specifications or do not conform in character or quality to the samples approved Owner. In case of default on the part of the bidder in removing rejected materials, the Owner shall be at liberty to have them removed by other means. The Owner shall have full powers to direct other proper materials to be substituted for rejected materials and in the event of the bidder refusing to comply. Owner may cause the same to be supplied by other means. All risks and costs which may attend upon such removal and/or substitution shall be borne by the bidder.
- 13.6 Bidder shall be responsible for procurement of all materials/equipments etc. No delay due to non availability of any material equipment will be entertained by Owner.

14.0 Method of storing the materials

- 14.1 The bidder shall at his own cost, provide for all necessary storage on the site in specified areas for all materials such as steel, cement and such other materials which are likely to deteriorate by the action of sun, wind, rain, dampness or other natural causes due to exposure in the compounds or in stores in such a manner that all materials, tool etc. shall be duly protected form damage by weather or any other cause.
- 14.2 Materials required for the works, by the bidder be stored by the bidder only at places approved by the Owner. Storage and safe custody of materials shall be the responsibility of the bidder. All the materials including bidder's Tools & Plants brought by the bidder to the site shall become and remain the property of the Owner and shall not be removed off the site without prior written approval of the Owner/Owner. But whenever the works are finally completed and advances, if any, in respect of such materials are fully recovered, the bidder shall at own expenses forthwith remove from the site all surplus materials supplied by him and upon such removal, the same shall revert in and become the property of the bidder.

- **15.0 Shuttering and Scaffolding Materials:** It shall be desirable to have adequate amount of shuttering and scaffolding materials to complete the work speedily and Owner decision so as to the quantum of these desirable/ resources of the site shall be final and binding.
- **16.0 Completion of Work:** Before finally leaving site, all the Bidders stores, plant, tools and rubbish shall be removed and the site left clean and tidy. The space allocated by Owner shall be vacated and handed over to the Owner.
- 17.0 Water and Electricity for Construction work: Water & Electricity as per relevant section's mentioned above

18.0 Employment of Labour

- 18.1 The bidder shall comply with the requirement of statutory provisions and shall be solely responsible for fulfillment of all legal obligations under Contract Labour (R&A) Act, Inter State MigrantWorkmen (Registration of Employment and condition of Service Act, Payment of Wages Act., Minimum Wages Act, Workmen's Compensation Act, Factories Act, Employee's Provident Fund & Miscellaneous Provisions Act, Payment of Bonus Act, Payment of Gratuity Act, Industrial Disputes Act and all other Industrial/Labour enactments and Rules made there under as applicable from time to time. In case Owner incurs any liability towards payment of any dues, compensation, cost of any other liability of any kind whatsoever, due to non fulfillment of statutory provisions under any industrial/labour laws by the bidder, the same shall be made good by the bidder and Owner shall have full right to recover and claim the same against the bidder from his outstanding bills or otherwise. No Labour to stay at site.
- 18.2 The bidder will be expected to employ on the work only his regular skilled employees with experience of this particular work. The permission of the Owner must be obtained before tradesman are recruited locally for the work. This rule does not apply to unskilled labour. No female labour shall be employed in dark hours/ i.e. hours prohibited under the applicable law. No person below the age of eighteen years shall be employed at any point of time. The bidder shall pay, to each person, the wages as per minimum Wages Act of the State Government.
- 18.3 All traveling expenses including provision of all necessary transport to and from site, lodging allowances and other payments to the bidder's employees are his own responsibility. The hours of work on the site shall be decided by the Owner and bidder shall adhere to the same. All bidders employees shall wear safety helmet and such identifications marks as may be provided by bidder on work site and duly approved by Owner. All notices displayed on the site and any instructions issued by the Owner shall be strictly adhered to by the Bidder's and/or his sub-bidders employees. The bidder shall be required to maintain employment records as covered in relevant Acts and produce documentary evidence to the effect that he has discharged his obligations under the Employees Provident Fund Act 1952, and ESI Act, 1948 Group Insurance and other Acts for the workmen working at site.
- 18.4 The bidder shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Dean Infrastructure/Executive Engineer may in his discretion, without prejudice to any other right or remedy available in law, cancel the contract. The bidder shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.
- **19.0 Working and Safety Regulations:** The bidder shall observe all statutory safety and legal requirements regulations issued by Central and State Governments applicable to the work as well as any local regulations applicable to the site issued by the Owner or any other authority.
- 20.0 Particular attention is drawn to the following: In case of accident, the Owner shall be informed in writing forthwith and First-Aid, Hospitalization shall be provided by the Bidder. The bidder shall strictly follow regulations laid down by Govt. and State authorities in this regard and all cases are to be defended by the bidder. The Owner shall not refund any insurance claims. Bidder shall fence his plant, platforms, excavations etc. Compliance with all electricity regulations. Compliance with statutory requirements for inspection and test of all lifting appliances and auxiliary lifting gear. Staircase, doors or gangways shall not be obstructed in any way that will interfere with means of access of escape. Where it is necessary to provide and/or store petroleum products or petroleum mixtures and explosive, the bidder shall be responsible for carrying out such provision and/or storage in accordance with the rules and regulation laid

down in Petroleum Act 1934. Explosive Act 1948 and Petroleum and Carbide of Calcium Manual Published by the Chief Inspector of Explosive of India. All such storage shall have prior approvals of the Owner. In case any approval or clearance from Chief Inspector of Explosive or any statutory authorities is required, the bidder shall be responsible for obtaining the same.

The bidder shall have his own Fire Fighting Extinguishers and Equipment. The bidder shall be responsible for the provision of all safety notices safety equipments including the safety gadgets for his workmen required by both the relevant legislation and such as the Owner may deem necessary. While working at heights, safety belts and safety helmets shall necessarily be used.

- **21.0 Owner's and Bidder's Risks:** The Owner carries the risks, which this Contract states are The Owner risks, and the Bidder carries the risk, which this Contract states are The Bidder's risks.
 - 21.1 Owner's Risks: The Owner is responsible for the accepted risks which are :
 - a. In so far as they directly affect the execution of the Works. These include war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection of military or usurped power, civil war, riot commotion or disorder (unless restricted to the Bidder's Employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or
 - b. A cause due solely to the design of the Works, other than the Bidder's design.
 - 21.2 Bidder's Risks: All risks of loss or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the accepted risks of the owner.
 - 21.3 The Bidder shall be responsible for all injury to persons, animals or things, and for all damages to the structural and/or decorative part of property which may arise from the operations or neglect of himself or of any sub-bidder or of any of his or sub-bidder's employees whether such injury or damage arises from carelessness accident or any other causes whatsoever in any way connected with the carrying out to the Contract. This clause shall be held to include interalia any damage to buildings, whether immediately adjacent or otherwise and any damage to roads, footpaths, or ways as well as all damage caused to the buildings and the work forming the subject to this Contract by frost, rain or other inclemency of the weather. The Bidder shall indemnify the Owner and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of Government or otherwise and also in respect of an award of compensation or damages consequent upon such claim. The bidder shall make good all damages of every sort mentioned in the Clause, as to deliver up the whole of the Contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

22.0 Insurance

- 22.1 The Bidder shall provide, in the joint names of the Owner and the Bidder, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contracted Data for the following events which are due to the Bidder's risks and shall be covered under respective policies as under:
 - a. Workmen Compensation Policy;
 - b. Bidder's All Risk Policy;
 - c. Third Party Insurance.
- 22.2 Policies and certificates for insurance shall be delivered by the Bidder to the Owner for the approval before the Date of Start of work i.e. dates of execution of the contract. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 22.3 If the Bidder does not provide any of the policies and certificates required, the Owner may affect the insurance which the Bidder should have provided and recover the premiums the Owner has paid from payments otherwise due to the Bidder or if no payment is due, the payment of the premiums shall be a debt due.

- 22.4 Alterations to the terms of the insurance shall not be made without the approval of the Owner.
- 22.5 Both parties shall comply with the conditions in the insurance policy.
- **23.0 Setting out Works:** The bidder shall set out the works and responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions and alignment of all parts thereof, if at any time any error shall appear during the progress of any part of works the bidder shall at his own expenses rectify such error, if called upon to the satisfaction of the Owner.
- **24.0** Bidder to remove all offensive matter, non-suitable material etc immediately.
 - 24.1 All debris, excavated soil, filth or other matter or an offensive nature taken out of any trench, sewer, drain cesspool or other place shall not be deposited on the surface but shall be at once carted away by the bidder out of the premises/ site under intimation to concerned authorities.
 - 24.2 Any material brought on site if found unsuitable shall be removed from site at once by the Bidder under intimation to the concerned authorities.

25.0 Inspections by Owner

- 25.1 The representative of the Owner at all times have free access to the works and /or to the workshops, factories or other places where materials are being prepared or constructed for the Contract and also to any place where materials are lying or from which they are being obtained. No person except the representatives of Public authorities shall be allowed on the work at any time without the written permission of the Owner. If any work is to be done at a place other then the site of the works, the Bidder shall obtain written permission of the Owner for doing so.
- 25.2 The Owner and their representatives shall have the right to test and/ or inspect the works to confirm their conformity to the contract, at all times, whenever in progress either on the site on the Bidder's premises wherever situated or any firm or company where work in connection with this contract may be in hand. All records, registers or documents relating to the works including materials used on works shall be kept open to the inspection of the Owner or his Authorized representative when so called for in writing.
- 25.3 The Bidder shall get the quality of work done inspected for material and workmanship at different stages of execution as per instructions given by the Owner or their representative time to time. Any item of work done which is found not conforming to the Contract shall be rejected by the Owner. The decision of the Owner in such cases shall be final.
- 25.4 The inspections and tests may be conducted on the premises of the Bidder or at the Project site. When carried out on the premises of the Bidder or its sub-Bidder(s), all reasonable facilities and assistance including access to drawings and production data shall be furnished to the inspectors at no charge to the Owner.
- 25.5 Should any inspected items of work fail to conform to the specifications, the Owner shall communicate them and the Bidder shall either replace them or make all alterations necessary to meet specification requirements free of cost to the Owner.
- 25.6 The Bidder shall permit the Owner/Architect to inspect the Bidder's accounts and records relating to the performance of the Bidder and to have them audited by auditors appointed by the Owner, if so required.

26.0 Covering Up/Uncovering of Works

- 26.1 No part of the works shall be covered up without the approval of Owner and the Bidder shall afford full opportunity for examination and inspection by the Owner. The bidder shall give due notice to the EIC about the work to be covered up for its measurements and examination. The EIC shall within a reasonable time attend for the purpose of examining such work, unless the EIC specifically advises the Bidder in writing of his unwillingness not to attend for such examination in which case the Bidder may proceed further with the Contract work.
- 26.2 Should the Owner consider it necessary in order to satisfy himself as to the quality of the work, the Bidder shall at anytime during the continuance of the contract pull down or cut into any part of the work and make such opening into and to such an extent through the same, as the Engineer may direct and the Bidder shall make good the whole to the satisfaction of the Engineer, should the work prove to be faulty or in any respect not in accordance with the terms of the contract documents, the Engineer shall be at liberty to order such further removal as he may consider necessary and the whole of the expenses incurred shall be borne by the bidder. If however, the work proves to be sound and in accordance with the contract document, the actual expenses incurred in such examination will be borne by the Owner.

- 26.3 Rates charged by the Bidder for works performed under the contract shall not vary from the rates quoted by the Bidder in its bid, with the exception of any price adjustments authorized in SCC or in the Owner's request for bid validity extension, as the case may be.
- 26.4 If requested by the Owner, the Bidder shall provide the Owner with a detailed cost breakdown of any rate in the Schedule of Quantities.
- 26.5 The Owner may at any time / stage of execution demand for the Analysis of Rates for any item / items of work which in their opinion is / are abnormally high / low rates or required for the Analysis of Rates of other Publish / extra item / items. The Bidder is bound to present the same and if the Bidder is unable to present a justified Analysis of Rates for any item / items, the rate / rates for such item may be adjusted accordingly and the decision of the Owner in such cases shall be final.

27.0 Change in the order/ Extra items of work

- 27.1 The Owner may at any time, by written order given to the Bidder, make alterations in, omissions from, additions to, or substitutions for, in drawings, designs or specifications or quantities of the items of work
- 27.2 Owner reserves to itself the right of omission of any item of work from the awarded Publish at any time / stage during the execution of work and award the same to another agency / bidder.
- 27.3 The Owner may at any time (during execution of work), by written order given to the Bidder, increase the scope of work or include any new item of work. The Bidder shall be bound to carry out such works, the rates for which shall be arrived at on the basis of the CPWD Schedule of Rates or if the Schedule is silent by standard methods of rate analysis as derived by the Owner/Architect.

28.0 Payment

- 28.1 The method and conditions of payment to be made to the Bidder under the contract shall be specified in SCC.
- 28.2 Payment shall be made promptly by the Owner within thirty (30) days of certification of the bill by the Owner.
- 28.3 All intermediate running payments to the bidder shall be regarded as payments by way of advance against the final payment and shall not preclude the requiring of bad, unsound and imperfect or unskillful work to be removed, taken away and reconstructed or re-erected.

29.0 Variations and Provisional Cost(If applicable):

- 29.1 Where work cannot be measured and valued properly, the Bidder shall be allowed day work rates on the prices prevailing when such work is carried out (unless otherwise provided in the contract): a. At the rates if any inserted by the Bidder in the priced Schedule of Quantities or b. If no such rates have been inserted then at the rates prevailing in the market for material and labour and at the control rates for the controlled materials including in all cases the rate for delivery of the material at the work.
- 29.2 Provided that in any case voucher specifying the time daily spent upon the work (and if required by the Owner the workman's names) and the materials used shall be delivered for verification to the Owner, or his authorised representative not later than the end of the week following that in which the work has been executed. Effect shall be given to the measurement and valuation of variations in interim Certificates and by adjustment of the total Contract Value.

30.0 Claims for Extra or for Deductions

- 30.1 The Owner shall not be responsible for the payment of any claim for extra work not included in the contract nor the Bidder shall be entitled to claim any addition to the contract sum in respect of any changes or alterations in the materials used unless the same shall have been ordered or sanctioned, as the case may be, in writing by the Owner.
- 30.2 The Bidder has to submit a monthly return by 10th of the ensuing month for any extra work which in his opinion is not covered by the contract agreement through the Owner's/ Owner's representatives and obtain a receipt from the authorized signatory of the Owner. Failing this, he shall have no right to any such claim, whatsoever may be the circumstances, later on.
- 30.3 In the event of any dispute arising either as to validity of the claim or as to the account to be paid or allowed in respect thereof, the decision of the Owner shall be final and binding on the bidder. In the meantime, the Bidder may either proceed with the work in question or suspend the same as may be determined by the Owner.
- 30.4 All extra works (those permitted by Owner) of every description shall be executed by bidder on site of work in pursuance of any of the provision of the contract, shall be measured up, and shall be paid

according to actual quantities ascertained by such measurements and the prices as finalized by the Owner based on the priced schedule of quantities so that such priced schedule of quantities shall include all such operations and accessories as appear in the said schedule of prices or specification to be or shall in the opinion of the Owner the contingencies upon the works mentioned in such schedule of prices or required to make such works perfect and fit for use.

- 30.5 Provided also that if any work shall be ordered by the Owner and executed by the Bidder for the payment of which no provision in the opinion of the Owner have been made in the priced schedule of quantities or the specifications, the Owner shall fix and determine such prices for the same based on the prices appearing in the priced schedule of quantities, such allowance being made as may seem to the Owner sufficient for any difference in the character of conditions of the work. However rates for extra items shall be fixed on the basis of actual rate analysis.
- 30.6 If, it shall appear that the work has been executed with unsound, imperfect or unskilled workmanship, or with material of any imperfect or any inferior quantity or otherwise not in accordance with the contract documents the Bidder shall at his own cost rectify, reform, remove, or reconstruct the same, wither in the whole or in part, as may be directed by the EIC, whether or not the value of any such work or materials shall have been included in any payment made to the Bidder.
- 30.7 The Bidder shall remove all malba etc., wash and clean the floors and hand over the site quite clean on the completion of the work.

31.0 Delay in the Bidder's performance

- 31.1 Execution of the work and performance of the services shall be done by the Bidder in accordance with the time schedule specified by the Owner in the Notice inviting tender.
- 31.2 If, at any time during performance of the contract, the Bidder should encounter conditions impending timely execution of the works and performance of services, the Bidder shall promptly notify the Owner in writing of the fact of the delay, its likely duration and its cause(s). As soon as possible, after receipt of the Bidder's notice, the Owner shall evaluate the situation and may, entirely at its discretion, extend the Bidder's time for performance with or without liquidated damages
- **32.0 Liquidated Damages**: If the Bidder fails to execute any or all of the works or to perform the services within the period(s) specified in the contract, the Owner shall deduct from the contract value, as liquidated damages, a sum specified in the SCC for each week or part thereof delay until actual completion or performance, up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the Owner may consider termination of the contract.

33.0 Termination by Default

- 33.1 The Owner may without prejudice to any other right or remedy, by written notice (of fifteen days) of default sent to the Bidder, terminate the contract in whole or part: a) if the Bidder fails to complete any or all of the works within the period(s) specified in the NIT or any amendment thereof, or within any extension thereof granted by the Owner, or b) if the Bidder fails to perform any other obligation(s) under the contract,
- 33.2 In the event, the Owner terminates the contract in whole or in part, the Owner may procure, upon such terms and in such manner as it deems appropriate, works or services similar to those unexecuted and the Bidder shall be liable to the Owner for any excess costs for such similar work or services. However, the Bidder shall continue the performance of the contract to the extent not terminated.

34.0 Force Majeure

- 34.1 The Bidder shall not be liable for forfeiture of its performance guarantee, liquidated damages or termination by default, if and to the extent that, its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.
- 34.2 For purposes of this clause, "Force Majeure" means an unforeseeable event beyond the control of the Bidder and is not because of the Bidder's fault or negligence. Such events may include acts of the Owner either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics.
- 34.3 If a Force Majeure situation arises, the Bidder shall promptly notify the Owner in writing of such conditions and the cause thereof. Unless otherwise directed by the Owner in writing, the Bidder shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

- **35.0 Termination for Insolvency:** The Owner may at any time terminate the contract by giving written notice to the Bidder, if the Bidder becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Bidder, provided such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Owner.
- **36.0 Termination for Convenience:** The Owner, by written 30 days prior notice sent to the Bidder may terminate the contract, in whole or in part, at any time for its convenience. The notice shall specify that the termination is for Owner's convenience, the extent to which performance of the Bidder under the contract is terminated, and the date upon which such termination becomes effective. The items of work that are complete and ready within (1) month after the Bidder's receipt of notice of termination shall be accepted by the Owner at the contract terms and values. For the remaining works, the Owner may elect;
 - a) to have any portion completed at the contract terms and value and/or
 - b) to cancel the remainder and pay to the Bidder an amount, finalized by the Owner, for partially completed works and for materials and parts previously procured by the Bidder.

37.0 Resolution of Disputes

- 37.1 The Owner and the Bidder shall make every effort to resolve amicably by direct informal negotiations any disagreement or dispute arising between them under or in connection with the contract. If, after thirty (30) days from the commencement of such informal negotiations, the Owner and the Bidder have been unable to resolve amicably a contract dispute, either party may require that the dispute be referred for resolutions to the formal mechanisms specified in the SCC. These mechanisms may include but are not limited to, Arbitration in accordance with rules of Arbitration Act and award made in pursuance thereof shall be binding on both the parties.
- 37.2 All disputes should be under the Jurisdiction of civil court Roorkee.
- **38.0 Governing language:** The contract shall be written in Hindi or English language. All correspondence and other documents pertaining to the contract that are exchanged by the parties shall be written in the same language.
- **39.0 Governing law:** The contract shall be governed by the laws of The Union of India for the time being in force. All disputes are subject to jurisdiction of courts at Roorkee or Honorable High Court Uttrakhand at Nainital.
- **40.0 Notices:** Any notice given by one party to the other pursuant to this contract shall be sent to other party in writing by e-mail or letter and confirmed in writing to the other party's address specified in SCC. A notice shall be effective on the date on which it is delivered, or on the notice's effective date, whichever is later.
- **41.0 Discoveries:** Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Owner. The Bidder is to notify the Owner of such discoveries and carry out the Owner' instructions for dealing with them.
- **42.0 Dismissals of workmen:** The bidder on request from the Owner, immediately dismiss from the works any person employed by him who may be found in the opinion of the client to be unsuitable or incompetent or who has shown misconduct.
- **43.0 Working Hours:** Normal working hours shall be from 08:45 a.m. to 05:30 p.m. No construction work of important structural nature shall be carried out on Sundays, Holidays and during nights. However working hours can be extended in case of urgency with prior approval of IIT Roorkee.

B. TIME CONTROL

44.0 Program

- 44.1 Within the time stated in the Contract Data the Bidder shall submit to the Owner for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the works, along with weekly cash flow forecast.
 - An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.

- 44.2 The Bidder shall submit to the Owner, for approval, an updated Program at intervals no longer than the period as stated in the clause no. 7.1. If the Bidder does not submit an updated Program within this period, the Owner may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue program has been submitted.
- 44.3 The Owner's/Owner's approval of the Program shall not alter the Bidder's obligations. The Bidder may revise the Program and submit it to the Owner again at any time. A revised Program is to show the effect of Variations at any stage of work, Owner award any item/part of item of work to bidder's workman/external agency, if in their opinion, the progress of work is suffering because of that. The work done will be added to the Bidder's bill and the amount paid for the job will be deducted from the Bidder's account.

45.0 Delay and Extension of time

If in the opinion of the Owner the work be delayed

- a) by force majeure or
- b) by reason of any exceptionally inclement weather or
- c) by reason of proceedings taken or threatened by or disputes with adjoining or neighboring owners or public authorities or
- d) by delays of other bidder or Tradesmen engaged by the Owner or the Owner and the works not referred to in the Schedule of Quantities and/or specification or
- e) by reasons of Owner's instruction or
- f) by reason of civil commotion, local combination of workmen or strike or lockout affecting any of the building trades or
- g) in consequence of the bidder not having received in due time necessary instructions from the Owner for which he shall have specially applied in writing or
- h) from other cause which the Owner may certify as beyond the control of the bidder or
- by reason of nonpayment of interim certificate at specified time, the Owner shall grant for approval by the Owner a fair and reasonable extension of time for completion of the Contract. In case of strike or lockout the bidder shall as soon as may be given written notice thereof to the Owner, but the bidder shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of Owner to proceed with the work.

C. QUALITY CONTROL

46.0 Identifying Defects: The Owner shall check the Bidder's work and notify the Bidder of any Defects that are found. Such checking shall not affect the Bidder's responsibilities. The Owner may instruct the Bidder to search for a Defect and to uncover and test any work that the Owner considers may have a Defect.

47.0 Correction of Defects

- 47.1 The Owner shall give notice to the Bidder of any Defects before the end of Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability period shall be extended for as long as Defects remain to be corrected.
- 47.2 Every time notice of Defect is given, the Bidder shall correct the notified Defect within the length of time specified by the Owner' notice.
- **48.0 Uncorrected Defects:** If the Bidder has not corrected a Defect within the time specified in the Owner' notice, the Owner will assess the cost of having the Defect corrected, and the Bidder will pay this amount.

D. COST CONTROL

49.0 Schedule of Quantities

- 49.1 The Schedule of Quantities shall contain items for the construction work, installation, testing, and commissioning work to be done by the Bidder.
- 49.2 The Schedule of Quantities is used to calculate the Contract Price. The Bidder is paid for the quantity of the work done at the rate in the priced Schedule of Quantities for each item.

50.0 Variations: All variations in the program pursuant to clause no. 7.0 of GCC shall be included in the updated program produced by the Bidder.

51.0 Payments for Variations

- 51.1 The Bidder shall provide the Owner with a quotation (with breakdown of unit rates) for carrying out the Variation when requested to do so by the Owner. The Owner shall assess and finalize the quotation, which shall be given within seven days of the request or within any longer period stated by the Owner and before the Variation is ordered.
- 51.2 If the Bidder's quotation is unreasonable, the Owner may order the Variation and make a change to the Contract Price which shall be based on Owner' own forecast of the effects of the Variation on the Bidder's costs.
- 51.3 If the Owner decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and shall be treated as a Variation.
- 51.4 The Bidder shall not be entitled to additional payment for costs, which could have been avoided by giving early warning.

E: FINISHING THE CONTRACT

- **52.0** Completion Certificate: The Bidder shall request the Owner to issue a Certificate of Completion of the Works will do so upon deciding that the Work is completed.
- **53.0 Taking Over:** The Owner shall take over the Site and the Works within seven days of the Owner issuing a certificate of Completion. Before handing over the site, the bidder must obtain a site clearance certificate from the Owner.
- **54.0 Final Account:** The Bidder shall supply to the Owner a detailed account of the total amount that the Bidder considers payable under the Contract before the end of the Defects Liability Period. The owner shall issue a Defect Liability Certificate and certify any final payment that is due to the Bidder within 5-6 days of receiving the Bidder's account if it is correct and complete. If it is not, the Owner shall issue within 5-6 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Owner shall decide on the amount payable to the Bidder and issue a payment certificate within 5-6 days of receiving the Bidder's revised account.

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract are supplementary, to the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General Conditions of Contract is indicated in parentheses.

1. Definition (GCC clause 1.0)

- a) Owner means: IIT Roorkee.
- b) Site means the project site situated in IIT Roorkee Main Campus / Saharanpur Campus.
- **2.** (i) **Security Deposit**: As per Critical Data Sheet.
 - (ii) Release of Security Deposit: Security Deposit will be refunded by the Owner after completion of Defect Liability Period i.e. 12 months from date of actual completion.
- 3. Performance Guarantee: As per Critical Data Sheet.

4. Payment:

- **4.1** a) No advance payment shall be made.
 - b) Payments will be made either on completion of a quarter or on bill amount not less than 25% of the contract value or as approved by Dean, Infrastructure.
- **4.2** Payment shall not be released against 1st R/A bill until submission of following documents by bidder to the Owner:
- a) Attendance of deployed manpower (if applicable)
- b) Measurements
- c) GST Invoice with revenue stamp.
- d) EPF (if applicable) & ESI (if applicable) deposit proof.
- e) Deployed manpower salary deposit proof.
- f) Insurance Bidder's All Risk (CAR) Policy, Workmen compensation policy and Third Party Liability Insurance.

4.2.1 Basis of Payment in RA bills

Payment in RA bills shall be based on quantity of work executed at site (as per the item of work) & verified by Owner as per the item rate in work orders. Owner is authorized to allow part rate/reduced rate for any item of work.

4.2.2 Disallowance of payment

If payment has been made in RA bill for any item of work but later on some defect is noticed, Owner/Architect is authorized to disallow the payment in the subsequent bills till rectification of the work.

4.3 Final bill

The final bill complete in all respect shall be submitted by the bidder within 60 days from the date of completion of work. The total quantity may vary as per actual work execution/site requirement/and user suggested changes during execution.

The bill should be accompanied with the following documents.

- a) Job completion certificate.
- b) Site clearance certificate.
- c) Indemnity certificate towards labour payment and all statutory payments.
- d) Certificate of test on materials etc. (if applicable.)
- e) Certificate of measurement sheets.
- f) Original quality control record, measurement records and any other joint site records maintain at site (if applicable). No claim shall be entertained after receipt of final bill.
- g) Warranty certificate(if applicable)

Settlement of final bill shall be made subject to deduction of all dues payable by bidder, settlement of all disputes and furnishing of all required documents/clarifications and grant of extension of time, if any, by Owner's competent authority.

5. Liquidated Damages

The quantum of work with stipulated time (as per discretion of EIC) will be communicated to the firm via email, hard copy or telephonically. In case of delay/partial completion, 0.5% per week of balance / unattended work subject to a maximum of 5% (Five percent) of the Contract value from the stipulated date of completion.

6. Resolution of Disputes

In case the parties don't agree to the advice of owner, then the Director, IIT Roorkee shall appoint a sole arbitrator within 30 days of receipt of request forthwith. The arbitration shall be governed by Arbitration and Reconciliation Act 1996.

7. Notices

For the purpose of all notices, the following shall be the address of the Owner and the Bidder.

Owner:

Dean Infrastructure,

Estate & Works,

Indian Institute of Technology

Roorkee

Bidder:

(To be filled in at the time of Signing of the Contract)

8. Resolution of Disputes & Arbitration

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, terminations, completion or abandonment thereof shall be dealt with as mentioned hereinafter.

If the bidder considers any work demanded of him to be outside the requirements of the contract or disputes any drawings, record or decision given in writing in connection with or arising out of the contract or carrying out of the work, he shall promptly within 15 days request the Owner in writing for written instruction or decision.

If the Bidder is dissatisfied with this decision, the Bidder shall within a period of 30 days from receipt of the decision, give written notice to the IIT Roorkee for appointment of Arbitrator failing which the said decision shall be final binding and conclusive and not referable to adjudication by the Arbitrator.

Except where the decision has become final, binding and conclusive in terms of Sub Para (i) above disputes or difference shall be referred for adjudication through arbitration by a sole arbitrator appointed by The Director, IIT Roorkee. If reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor. It is a terms of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each dispute along with the notice for appointment of arbitrator. It is also a term of this contract that no person other than a person appointed by such IIT Roorkeeas aforesaid should act as arbitrator and if for any reason that is not possible, the matter shall not be referred to arbitration at all.

It is also a term of this contract that if the contactor does not make any demand for appointment of arbitrator in respect of any claims in writing as aforesaid within 30 days of receiving the intimation from the Owner that the final bill is ready for payment, the claim of the bidder shall be deemed to have been waived and absolutely barred and IIT Roorkee shall be discharged and released of all liabilities under the contract in respect of these claims. The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 (26 of 1996) or any statutory modifications or reenactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause.

9. Protection of environment

- 8.1 The Bidder shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.
- 8.2 During continuance of the contract, the Bidder and his sub-bidders shall at all times abide by all existing enactment on environmental protection and rules made there under, regulations, notifications and bye-law of the State or Central Government, or local authorities and any other law, by-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.
- 8.3 Salient features of some of the major laws that are applicable are given below:

The Water (Prevention and Control of Pollution) Act, 1974 This provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.

The Air (Prevention and Control of Pollution) Act, 1981, This provides for prevention, control and abatement of air pollution, 'Air Pollution' means the presence in the atmosphere of any air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

The Environment (Prevention and Control of Pollution) Act, 1986 This provides for the protection and improvement of environment and for matters connected to herewith, and the prevention of hazards to human beings. Other living creatures, plants and property, 'Environment' includes water, air and land and the interrelationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

The Public Liability Insurance Act 1991. This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.

10. Specification to be followed for execution for execution of works are:

For Civil Works:

CPWD Specifications 2019 Vol. 1 and Vol. 2 with correction slips up to the last date of submission of bid.

For E & M Works:

- 1. CPWD General Specifications for Electrical Works Part-I (Internal) 2013 with correction slips up to the last date of submission of bid.
- 2. CPWD General Specifications for Electrical Works Part-II (External) 1995 with correction slips up to the last date of submission of bid.
- 11. If the bidder wants to offer any unconditional rebates on their offer that should be clearly mentioned.

Undertaking

(On Non Judicial stamp paper of Rs. 100/-)

N	Name of the address of the bidder:	
<u> </u>	NIT No	
<u> </u>	Name of the work:	
E	Oue Date:	
	I/We have read and examined the Tender document for the work. I work specified for the Institute within the time specified in N specifications, designs, drawing and instructions in writing referred materials as are provided for, by, and in respect of accordance with	IT of quantities and in accordance with the ed to the conditions of contract and with such
	I/We agree to keep the Bid open for ninety (90) days from the modification in its terms and conditions.	due date of its opening and not to make any
	Earnest Money as mentioned in the critical data sheet is hereby for Fixed Deposit Receipt issued by scheduled bank. If I/We, fail to within prescribed period. I/We agree that the Institute has to right Further, if I/We fail to commence work as specified, I/We agree to performance guarantee absolutely. The said performance guarantee referred to in the Tender documents upon the terms and conditions limit at the rates to be determined in accordance with the provision case of forfeiture of Earnest Money or Performance Guarantee participation in the re-Tendering process of the work.	furnish the prescribed performance guarantee t to forfeit the said earnest money absolutely. that the Institute has to right to forfeit the said e shall be a guarantee to execute all the works contained or referred to those in excess of that a contained in NIT. Further, I/We agree that in
	I/We undertake and confirm that eligible similar work(s) has/have on back to back basis. Further that, if such a violation comes to th for tendering in E&W, IIT Roorkee in future forever. Also, if so before date of start of work, the Engineer-in-Charge shall be free Deposit/Performance Guarantee.	e notice of owner, then I/we shall be debarred uch a violation comes to the notice of owner
	I/We hereby declare that I/We shall treat the tender documents d work as secret/confidential documents and shall not communicate other than a person to whom I/We am/are authorized to commun manner prejudicial to the safety of the State.	information/derived there from to any person
	I/We hereby declare that I/We have no near relative connection by	marriage to any staff of the Institute.
	The information given in the tender form is correct and best of my	knowledge.
	Dated:	Signature of Bidder
	Witness:	Postal Address
		Occupation:

PERFORMANCE GUARANTEE BOND

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					the Bank") hereby			
				ount not exceed	ling Rs	(only)	on
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EARNEST MONEY DEPOSIT DECLARATION

	I/we(name		•	
	by submit following declaration in lieu of submitting Earnest Money De			
	er the opening of tender, I/we withdraw or modify my/our bid during the			dity of
	acluding extended validity of tender) specified in the tender documents,	F		
(2) If, aft	or ter the award of work, I/we fail to sign the contract, or to submit per	form	ance guar	rantee
before the	e deadline defined in the tender documents,			
	l be suspended for one year and shall not be eligible to bid for IIT Roork	ee te	nders fror	n date
of issue of	of suspension order.			
	Signature	of th	e contrac	tor(s)

LIST OF APPROVED / PREFERRED MAKE

S.No.	Materials/ Equipments	Manufacturer/ Make				
1	MCB, Isolator, Industrial Plug Socket,	Schneidler Electric ACTI-9 (N)/ Legrand (DX3)/ Hager/				
	RCCB, RCBO'S	L&T (Exora)/ ABB (S200M)/ Siemens (Betaguard)				
2	MCBDB & Loose Wire Box	Legrand/ L&T/ Hager/ Schindler/ ABB (Elegance)/ Siemens				
3	Change Over Switches	L&T/ Havells/ HPL/ Hager				
4	Automatic Transfer Switch (ATS)	Asco/ Russel/ Socomac/ Hager/ ABB				
5	FRLS PVC insulated copper conductor single core cale for wiring . (ISI marked)	Finolex/ RR Kabel/ KEI/ Havells/ Polycab				
6	Armoured/ Unarmoured Telephone cable, Coaxial Cable/ LAN Cable	Delton/ Finolex/ RR Kabel/ Havells				
7	MS Conduit (ISI marked) with heavy	BEC/ NIC/ AKG/ RMCON				
	duty MS Conduit pipe accessories	(Note: The make of accessories will be same that of				
		conduit pipe & will comply to IS:4768 part 2 2003)				
8	PVC Conduit/ Batten (ISI marked) with havy duty PVC conduit pipe accessories	AKG/ Norpack/ BEC/ Polypack/ Precision				
9	Modular Switch, Socket/ Telephone	Havells (Murano)/ Anchor by Panasonic (Wood)/ Legrand				
	Socket/ Cable TV Socket/ Data Outlet	(Arteor)/ Schindler Electric (Zencelo)/ Honeywell-MK				
	Socket/ Fan Regulator/ G.I. Boxes Etc. (Wiring accessories)/ Regulator etc.	(Aspect)/ Hager (Insysta)				
10	Selector Switch & Toggle Switch	Salzer (Larsen & Toubro)/ Siemens/ Kaycee				
11	PVC Trunking	Legrand/ Schindler/ Hager				
12	G.I. Pipe	Tata/ Jindal (Hissar)/ Prakash Surya				
13	Paints	Asian/ Berger/ Dulux/ Narolac				
14	Terminals Blocks and Connectors	Elmax/ Wago/ Hensel/ Connectwell				
15	Phenolic Laminated Sheet/ Bakelite	Hylam/ Formica/ (P-I Grade)/ Mylam/ Greenlam				
16	Cat-6 Cable, Wire & Fiber Optic Cable	Amp/ AVAYA/ Beldon/ Legrand/ Krone Communication/ Molex				
17	Piano Type Switch/ Socket	Anchor/ Kinjal				
18	Ceiling Rose/ Holder/ Call Bell/ Buzzer	Anchor/ Kinjal/ Cona				
19	Fluoresent Fittings	Wipro/ Phillips/ Crompton Greaves/ Havells				
20	LED Fittings	Wipro/ Phillips/ Crompton Greaves/ Havells				
21	Exhaust Fan	Havells/ Crompton Greaves/ Usha/ Almonard/ Orient				
22	Ceiling Fan	Havells/ Crompton Greaves/ Usha/ Almonard/ Orient				
23	Wall Bracket Fitting	Havells / Crompton Greaves / Phillips				
24	Lamps/ Fluoresent Tubes/ T5 Fluorescent Tubes LED Lamps	Phillips/ Wipro/ Crompton/ Havells				
25	Geysers	Racold/ CG/ Havells/ Usha/ Jaquar				
26	Sensor based LED Light Fittings	Wipro/ Phillips/ Crompton Greaves/ Havells / Sensinova				
27	LED Post Fitting/ Street Lighit Fitting	Wipro/ Crompton Greaves/ Havells/ Phillips				
28	LED Street Lights with inbuilt Solar Panel & Controller	Havells/ CG/ Phillips/ Wipro				
29	Ornamental G.I. pole (Factory Finish)	Phillips/ Crompton/ Greaves/ Wipro/ Bajaj				
30	Hot Dipped Galvanized Octogonal Pole (Factory Finish)	Crompton Greaves/ Phillips/ Bajaj/ Wipro				

31	Polycarbonate Juction Box/ Encloser	Hensel/ Spelsberg/ Naptune- Bals			
32	XLPE insulated PVC Sheated Alum./	Finolex/ Universal/ Polycab/ RPG Cable/ KEI/ Havells			
	Copper conductor Armoured cable of	, and the second			
	1.1KV Grade				
33	LT Panel/ Meter Panel Board/ Outdoor	Tricolite Elecrical Industries/ Control & Switchgears Pvt.			
	Feeder Pillar/ APFC Panel (less than	Ltd./ Sterling &Wilson/ Milestone/ Adlec Control System			
	200 kVAR)/ Bus Ducts	Pvt. Ltd./ Advance Panels & Switchgears Pvt. Ltd./ S.S.			
		Enterprises/ A.R. Engineers			
34	Moulded Case Circuit Breaker (MCCB)	Schneider Electric (NSx Series)/ Siemens (VL Series)/			
	Thermal Release/ Microprocessor	L&T (D-Shine)/ Legrand (DPX3)/ ABB (Tmax)/ C & S			
	Based (Ics=Icu=100%)	(Winbreak-1/2)			
35	Potential Transformer/ Current	Automatic Electric/ Gilbert & Mexwell/ Matrix/ Precise/			
	Transformer	L&T/ Kappa			
36	Conventional/ Electronic Digital Meters	Conzerv/ Larsen & Toubro/ Secure/ AE/ C&S/ Siemens/			
	(A/V/PF/Hz/KW/KWH)	Schneider			
37	H.T Cable (ISI marked)	CCI/ Polycab/ Universal/ KEI/ Havells/ RPG Cables			
38	HT End Termination Cable Joint Kit	Reychem/ Cab Seal/ 3M			
39	Ammeter	AE/ Rishab/ L&T/ C&S			
40	Voltmeter	AE/ Rishab/ L&T/ C&S			
41	XLPE insulated PVC Sheated Alum./	Finolex/ Universal/ Polycab/ RPG Cable/ KEI/ Havells			
	Copper conductor Armoured/				
	Unarmored cable of 1.1kV grade				
42	Cable Glands Double Compression with	Comet/ Cosmos/ Dowells/ Gripwell/ Jainson			
	earthing links				
43	Bimetallic Cable Lugs	Comet/ Dowells (Biller India)/ Hax Brass (Copper Alloy			
		India)/ Jainson/ Action			
44	MS Cable Tray	Pilco/ Slotco/ Pasco/ MEM/ BEC/ Steelways/ Legrand			
45	DG Set Canopy/ Enclosure & AMF	As per OEM/ OEA of respective DG Set Manufacturer			
	Panel				
46	Online/ Offline UPS	Numeric/ Eaton/ APC/ Vertiv			

Note:

1. Items whose make are not mentioned in the approved make list will be as per direction of EIC.

ESTATE & WORKS

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Schedule of Quantities

Name of Work: "Electrical General Maintenance / Rewiring works at SRE Campus of IIT Roorkee."

SI. No.	Item Description	Quan tity	Units	Estimate d Rate with GST in Rs. P	Quoted Currency in INR / Other Currency	TOTAL AMOUNT With GST in Rs. P	TOTAL AMOUNT In Words
1	2	4	5	6	12	53	55
1	Supplying and Wiring for light point/fan point/exhaust fan point/call bell point with 1.5 mm² FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit ISI 16 gauge, with piano type switch, phenolic laminated sheet, suitable size M.S. Box and earthing the point with 1.5 mm² FRLS PVC insulated copper conductor single core cable etc as required	10	Each	821.00	INR	8210.00	INR Eight Thousand Two Hundred & Ten Only
2	dobut 2 way light point with 2 nos. two way P.T. switch.	5	Each	1198.00	INR	5990.00	INR Five Thousand Nine Hundred & Ninety Only
3	Supplying and Wiring for light point/fan point/exhaust fan point/call bell point with 1.5 mm² FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit ISI 16 gauge with modular type switch, modular plate, suitable GI box and earthing the point with 1.5 mm² FRLS PVC insulated copper conductor single core cable etc as required.	150	Each	845.00	INR	126750.00	INR One Lakh Twenty Six Thousand Seven Hundred & Fifty Only
4	dobut 2 way light point with 2 nos. two way modular switches.	10	Each	1290.00	INR	12900.00	INR Twelve Thousand Nine Hundred Only
5	Wiring for light point/fan point/exhaust fan point/call bell point with 1.5 mm² FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, with piano type switch , phenolic laminated sheet, suitable size M.S. Box and earthing the point with 1.5 mm² FRLS PVC insulated copper conductor single core cable etc as required	5	Each	694.00	INR	3470.00	INR Three Thousand Four Hundred & Seventy Only

6	Wiring for twin control light point with 1.5 mm² FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way piano type switch, phenolic laminated sheet, suitable size MS box and earthing the point with 1.5 mm². FRLS PVC insulated copper conductor single core cable etc. as required.	5	Each	975.00	INR	4875.00	INR Four Thousand Eight Hundred & Seventy Five Only
7	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 mm² FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 mm² FRLS PVC insulated copper conductor single core cable etc. as required.	5	Each	717.00	INR	3585.00	INR Three Thousand Five Hundred & Eighty Five Only
8	Wiring for twin control light point with 1.5 mm² FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 mm² FRLS PVC insulated copper conductor single core cable etc. as required.	5	Each	1057.00	INR	5285.00	INR Five Thousand Two Hundred & Eighty Five Only
9	Rewiring for light point/fan point/exhaust fan point/call bell point with 1.5 mm² FRLS PVC insulated copper conductor single core cable make and earthing the point with 1.5 mm² FRLS PVC insulated copper conductor single core cable in existing surface/ recessed steel/ PVC conduit including dismantling as required.	40	point	416.00	INR	16640.00	INR Sixteen Thousand Six Hundred & Forty Only
10	Rewiring for twin control light point with 1.5 mm² FRLS PVC insulated copper conductor single core cable and 1.5 mm² FRLS PVC insulated copper conductor single core cable as earth wire in existing surface/ recessed steel/PVC conduit including dismantling as required.	10	point	640.00	INR	6400.00	INR Six Thousand Four Hundred Only
11	Supplying and fixing 1.5 mm thick metal box of 150 mm x75 mmx 60 mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 5 pin 5/6 amps socket outlet and 5/6 amps piano type switch, connection, painting etc. as required. (for light plug to be used in non residential buildings).	10	Each	285.00	INR	2850.00	INR Two Thousand Eight Hundred & Fifty Only
12	Supplying and fixing 1.5 mm thick metal box of 180 mm x 100 mmx 60 mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 5/6 amps & 15/16 amps socket outlet and 15/16 amps piano type switch connection, painting etc. as required.	10	Each	406.00	INR	4060.00	INR Four Thousand &Sixty Only
13	Supplying and fixing suitable size G.I. box with modular plate and cover in front on surface or in recess, including providing and fixing 5 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection, painting etc. as required.	150	Each	401.00	INR	60150.00	INR Sixty Thousand One Hundred & Fifty Only

14	Supplying and fixing suitable size G.I. box with modular plate and cover in front on surface or in recess including providing and fixing 6 pin 15/16 & 5/6 amps modular socket outlet and 15/16 amps modular type switch, connection, painting etc. as required	150	Each	495.00	INR	74250.00	INR Seventy Four Thousand Two Hundred & Fifty Only
15	Supplying and Wiring for circuit/ submain line with 2x1.5 mm² FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit ISI 16 gauge along with 1 no 1.5 mm² FRLS PVC insulated copper conductor single core cable for loop earthing as required.	20	Metre	208.00	INR	4160.00	INR Four Thousand One Hundred & Sixty Only
16	do but 2x2.5 mm ² + 1x2.5 mm ² earth wire	400	Metre	229.00	INR	91600.00	INR Ninety One Thousand Six Hundred Only
17	do but 2x4 mm ² + 1x4 mm ² earth wire	500	Metre	263.00	INR	131500.00	INR One Lakh Thirty One Thousand Five Hundred Only
18	dobut 2x6 mm² + 1x6 mm² earth wire	50	Metre	356.00	INR	17800.00	INR Seventeen Thousand Eight Hundred Only
19	do but 2x10 mm ² + 1x6 mm ² earth wire	50	Metre	426.00	INR	21300.00	INR Twenty One Thousand Three Hundred Only
20	do but 2x16 mm ² + 1x6 mm ² earth wire	5	Metre	555.00	INR	2775.00	INR Two Thousand Seven Hundred & Seventy Five Only
21	do but 4 X 4 mm ² + 2 X 4 mm ² earth wire	10	Metre	406.00	INR	4060.00	INR Four Thousand &Sixty Only
22	do but 4 X 6 mm ² + 2 X 6 mm ² earth wire	50	Metre	529.00	INR	26450.00	INR Twenty Six Thousand Four Hundred & Fifty Only
23	do but 4 X 10 mm ² + 2 X 6 mm ² earth wire	50	Metre	670.00	INR	33500.00	INR Thirty Three Thousand Five Hundred Only
24	do but 4 X 16 mm ² + 2 X 6 mm ² earth wire	10	Metre	946.00	INR	9460.00	INR Nine Thousand Four Hundred & Sixty Only
25	Supplying and Wiring for circuit/ submain line with 2 nos. 1.5 mm ² FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit ISI along with 1 no. 1.5 mm ² FRLS PVC insulated copper conductor single core cable for loop earthing as required.	10	Metre	146.00	INR	1460.00	INR One Thousand Four Hundred & Sixty Only
26	do but 2x2.5 mm ² + 1x2.5 mm ² earth wire	20	Metre	167.00	INR	3340.00	INR Three Thousand Three Hundred & Forty Only
27	do but 2x4 mm ² + 1x4 mm ² earth wire	20	Metre	200.00	INR	4000.00	INR Four Thousand Only
28	dobut 2x6 mm² + 1x6 mm² earth wire	20	Metre	249.00	INR	4980.00	INR Four Thousand Nine Hundred & Eighty Only
29	dobut 2x10 mm ² + 1x6 mm ² earth wire	20	Meter	328.00	INR	6560.00	INR Six Thousand Five Hundred & Sixty Only
30	dobut 4x6 mm² + 2x6 mm² earth wire	10	Meter	394.00	INR	3940.00	INR Three Thousand Nine Hundred & Forty Only
31	dobut 4x10 mm ² + 2x6mm ² earth wire	10	Meter	543.00	INR	5430.00	INR Five Thousand Four Hundred & Thirty Only

32	Supplying and drawing 2 x 1.5 mm² sizes of FRLS PVC insulated copper conductor, single core cable in the exisiting surface/ recessed steel/PVC conduit as required with connection complete.	10	Meter	41.00	INR	410.00	INR Four Hundred & Ten Only
33	Supplying and drawing 2 pair, 0.5 mm ² FRLS PVC insulated copper conductor, unarmoured telephone cable in the exisiting surface/recessed steel/PVC conduit as required.	50	Metre	20.00	INR	1000.00	INR One Thousand Only
34	do but 4 pair	100	Metre	29.00	INR	2900.00	INR Two Thousand Nine Hundred Only
35	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, sheilded with fine tinned copper braid and protectiod with PVC sheath in the existing surface / recessed steel / PVC conduit as required.	20	Metre	33.00	INR	660.00	INR Six Hundred & Sixty Only
36	Supplying and fixing of 20 mm sizes of steel conduit ISI 16 gauge along with accessories in surface/ recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.	20	Metre	146.00	INR	2920.00	INR Two Thousand Nine Hundred & Twenty Only
37	do but 25 mm size	50	Metre	165.00	INR	8250.00	INR Eight Thousand Two Hundred & Fifty Only
38	do but 32 mm size	50	Metre	203.00	INR	10150.00	INR Ten Thousand One Hundred & Fifty Only
39	Supplying and fixing of 20 mm sizes of PVC conduit ISI along with accessories in surface/ recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.	50	Metre	84.00	INR	4200.00	INR Four Thousand Two Hundred Only
40	do but 25 mm size	100	Metre	90.00	INR	9000.00	INR Nine Thousand Only
41	Supplying and fixing of 32 sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.	10	RM	92.00	INR	920.00	INR Nine Hundred & Twenty Only
42	Supplying and fixing metal box of 75 mm x 75 mm x 60 mm deep sizes 1.5 mm thick sheet on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.	5	Each	140.00	INR	700.00	INR Seven Hundred Only
43	Supplying and fixing metal box of 100 mm x 100 mm x 60 mm deep sizes 1.5 mm thick sheet on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.	5	Each	160.00	INR	800.00	INR Eight Hundred Only
44	do but 180 mm x 100 mm x 60 mm deep	2	Each	183.00	INR	366.00	INR Three Hundred & Sixty Six Only
45	do but 200 mm x 150 mm x 60 mm deep	2	Each	261.00	INR	522.00	INR Five Hundred & Twenty Two Only
46	do but 200 mm x 250 mm x 60 mm deep	2	Each	335.00	INR	670.00	INR Six Hundred & Seventy Only
47	do but 200 mm x 300 mm x 60 mm deep	2	Each	387.00	INR	774.00	INR Seven Hundred & Seventy Four

							Only
48	do but 250 mm x 300 mm x 60 mm deep	2	Each	426.00	INR	852.00	INR Eight Hundred & Fifty Two Only
49	Supplying and fixing 5/6 amps piano type switch on existing switch box/ cover including connections etc. as required.	20	Each	45.00	INR	900.00	INR Nine Hundred Only
50	do but 2-way 5/6 amp switch	20	Each	54.00	INR	1080.00	INR One Thousand &Eighty Only
51	do but 15/16 amp switch	20	Each	110.00	INR	2200.00	INR Two Thousand Two Hundred Only
52	do but 5 pin 5/6 amp socket outlet	20	Each	58.00	INR	1160.00	INR One Thousand One Hundred & Sixty Only
53	do but 6 pin 15/16 amp socket outlet	20	Each	128.00	INR	2560.00	INR Two Thousand Five Hundred & Sixty Only
54	do but Telephone socket outlet Jack type	20	Each	75.00	INR	1500.00	INR One Thousand Five Hundred Only
55	do but Batten/Angle holder	20	Each	90.00	INR	1800.00	INR One Thousand Eight Hundred Only
56	Supplying and fixing 5/6 amps modular type switch on existing modular type plate & switch box including connections but excluding modular plate etc. as required.	20	Each	85.00	INR	1700.00	INR One Thousand Seven Hundred Only
57	do but 2-way 5/6 amp switch	30	Each	123.00	INR	3690.00	INR Three Thousand Six Hundred & Ninety Only
58	do but 15/16 amp switch	30	Each	132.00	INR	3960.00	INR Three Thousand Nine Hundred & Sixty Only
59	do but 5 pin 5/6 amp socket outlet	30	Each	111.00	INR	3330.00	INR Three Thousand Three Hundred & Thirty Only
60	do but 6 pin 15/16 amp socket outlet	30	Each	175.00	INR	5250.00	INR Five Thousand Two Hundred & Fifty Only
61	do but Telephone socket outlet Jack type	40	Each	119.00	INR	4760.00	INR Four Thousand Seven Hundred & Sixty Only
62	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	50	Each	32.00	INR	1600.00	INR One Thousand Six Hundred Only
63	Supplying and fixing 1 or 2 module (75 mm x 75 mm) size/ modules, G.I. box along with modular base & cover plate for modular switches in recess etc as required.	10	Each	243.00	INR	2430.00	INR Two Thousand Four Hundred & Thirty Only
64	do but 3 Module (100mmX75mm)	2	Each	267.00	INR	534.00	INR Five Hundred & Thirty Four Only
65	do but 4 module (125 mm x 75 mm)	2	Each	287.00	INR	574.00	INR Five Hundred & Seventy Four Only
66	dobut 6 module (200 mm x 75 mm)	2	Each	333.00	INR	666.00	INR Six Hundred & Sixty Six Only
67	do but 8 Module (125 mmX125 mm)	2	Each	383.00	INR	766.00	INR Seven Hundred & Sixty Six Only
68	do but 12 Module (200 mmX150 mm)	2	Each	434.00	INR	868.00	INR Eight Hundred & Sixty Eight Only

69	Supplying and fixing 1 or 2 module (86 mm x 86 mm) size/ modules, PVC box along with modular base & cover plate for modular switches in recess/surface etc as required.	5	Each	268.00	INR	1340.00	INR One Thousand Three Hundred & Forty Only
70	dobut 03 module PVC Box	5	Each	292.00	INR	1460.00	INR One Thousand Four Hundred & Sixty Only
71	dobut 04 module PVC Box	2	Each	311.00	INR	622.00	INR Six Hundred & Twenty Two Only
72	dobut 06 module PVC Box	2	Each	360.00	INR	720.00	INR Seven Hundred & Twenty Only
73	dobut 08 module PVC Box	2	Each	432.00	INR	864.00	INR Eight Hundred & Sixty Four Only
74	dobut 12 module PVC Box	2	Each	441.00	INR	882.00	INR Eight Hundred & Eighty Two Only
75	Supplying and fixing 1 or 2 module Modular base & cover plate on existing modular metal boxes etc. as required.	2	Each	114.00	INR	228.00	INR Two Hundred & Twenty Eight Only
76	dobut 3 module	2	Each	128.00	INR	256.00	INR Two Hundred & Fifty Six Only
77	dobut 4 module	2	Each	138.00	INR	276.00	INR Two Hundred & Seventy Six Only
78	dobut 6 module	2	Each	167.00	INR	334.00	INR Three Hundred & Thirty Four Only
79	dobut 8 module	2	Each	196.00	INR	392.00	INR Three Hundred & Ninety Two Only
80	dobut 12 module	2	Each	227.00	INR	454.00	INR Four Hundred & Fifty Four Only
81	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connection etc as required.	40	Each	65.00	INR	2600.00	INR Two Thousand Six Hundred Only
82	Supplying and fixing call bell suitable for A.C. single phase, 230 volts, complete as required.	50	Each	92.00	INR	4600.00	INR Four Thousand Six Hundred Only
83	Providing and fixing plain 16/0.20 mm (0.50 mm²) twin flat flexible, FRLS PVC insulated, copper conductor cable, in PVC sleeve of suitable size on the floor/wall, or side of the table/door etc. as required.	30	Each	26.00	INR	780.00	INR Seven Hundred & Eighty Only
84	Providing and fixing plain 16/0.20 mm(0.50 mm²) twin, circular flexible, FRLS PVC insulated, PVC sheathed copper cable direct on wall with PVC clips etc as required.	30	Metre	21.00	INR	630.00	
85	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube etc directly on ceiling/ wall, including connection with 1.5 mm² FRLS PVC insulated, copper conductor, single core cable and earthing etc after removal the old, as required.	10	Each	168.00	INR	1680.00	INR One Thousand Six Hundred & Eighty Only
86	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 mm ² FRLS PVC insulated, copper conductor, single core cable etc as required after removel the old if required.	10	Each	171.00	INR	1710.00	INR One Thousand Seven Hundred & Ten Only

87	Installation of exhaust fan up to 450 mm sweep in the existing opening, including making the hole to suit the size of the above fan, making good the damage, connection, testing, commissioning etc after removal the old, as required.	30	Each	363.00	INR	10890.00	INR Ten Thousand Eight Hundred & Ninety Only
88	Supplying and drawing of UPT 4 pair CAT 6 LAN Cable in the existing surface / recessed Steel / PVC Conduit as required 1run of cable	50	Metre	49.00	INR	2450.00	INR Two Thousand Four Hundred & Fifty Only
89	do but 2 run of cable	10	Metre	82.00	INR	820.00	INR Eight Hundred & Twenty Only
90	do but 3 run of cable	10	Metre	114.00	INR	1140.00	INR One Thousand One Hundred & Forty Only
91	Providing and fixing 125 amp, 16 KA, rating and breaking capacity TPMCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections etc. as required.	5	Each	4145.00	INR	20725.00	INR Twenty Thousand Seven Hundred & Twenty Five Only
92	do but 250 amp 35 KA MCCB	1	Each	11140.0	INR	11140.00	INR Eleven Thousand One Hundred & Forty Only
93	do but 400 amp 35 KA MCCB	1	Each	21512.0 0	INR	21512.00	INR Twenty One Thousand Five Hundred & Twelve Only
94	do but 630 amp 50 KA MCCB	1	Each	27771.0 0	INR	27771.00	INR Twenty Seven Thousand Seven Hundred & Seventy One Only
95	Supplying and fixing of 8-way, double door prewired SP&N MCB distribution board of steel sheet for 240 volts on surface/ recess complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)	10	Each	1760.00	INR	17600.00	INR Seventeen Thousand Six Hundred Only
96	do but 12-way, double door	20	Each	2053.00	INR	41060.00	INR Forty One Thousand &Sixty Only
97	do but 16 way, Double door	10	Each	2453.00	INR	24530.00	INR Twenty Four Thousand Five Hundred & Thirty Only
98	Supplying and fixing 4 way (4+12), double door, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)	5	Each	3068.00	INR	15340.00	INR Fifteen Thousand Three Hundred & Forty Only
99	do but 6 way (6 + 18), double door TPN DB	10	Each	3693.00	INR	36930.00	INR Thirty Six Thousand Nine Hundred & Thirty Only
100	do but 8 way (4 + 24), double door TPN DB	2	Each	4601.00	INR	9202.00	INR Nine Thousand Two Hundred & Two Only

101	Supplying, installation, testing and commissioning of surface/ recess mounting, vertical type, 415 volts, prewired, TPN MCB distribution board of sheet steel, dust protected, duly phosphatized and powder painted, inclusive of 200 amps tinned copper busbar, common neutral link, earth bar, din bar for mounting MCB's, detachable gland / knock out plate, and with built in loose wire box, and superior make terminal connectors for all incommining and outgoing circuits, duly prewired with adequate size of FRLS PVC insulated copper conductor upto the terminal connector/ neutral link and ready for installation of 4 ways (4+12) double door (but with out MCB's and incommer MCCB) as	2	Each	5651.00	INR	11302.00	INR Eleven Thousand Three Hundred & Two Only
102	requireddo but 8 way (4 + 24), double door VTPN DB	5	Each	7744.00	INR	38720.00	INR Thirty Eight Thousand Seven Hundred & Twenty Only
103	do but12 way (4 + 36), double door VTPN DB	5	Each	9828.00	INR	49140.00	INR Forty Nine Thousand One Hundred & Forty Only
104	Supplying and fixing 5 amps to 32 amps rating single pole, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.	200	Each	199.00	INR	39800.00	INR Thirty Nine Thousand Eight Hundred Only
105	do but 40 to 63 amp SPMCB	100	Each	611.00	INR	61100.00	INR Sixty One Thousand One Hundred Only
106	do but 5 to 32 amp SPN MCB	50	Each	544.00	INR	27200.00	INR Twenty Seven Thousand Two Hundred Only
107	do but 40 to 63 amp DPMCB	50	Each	1290.00	INR	64500.00	INR Sixty Four Thousand Five Hundred Only
108	do but 5 to 32 amp TPMCB	30	Each	826.00	INR	24780.00	INR Twenty Four Thousand Seven Hundred & Eighty Only
109	do but 40 to 63 amp TPMCB	10	Each	1922.00	INR	19220.00	INR Nineteen Thousand Two Hundred & Twenty Only
110	do but 5 to 32 amp TPN MCB	10	Each	1092.00	INR	10920.00	INR Ten Thousand Nine Hundred & Twenty Only
111	do but 40 to 63 amp 4Pole MCB	10	Each	2472.00	INR	24720.00	INR Twenty Four Thousand Seven Hundred & Twenty Only
112	Supplying and fixing 25 amps rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.	5	Each	1927.00	INR	9635.00	INR Nine Thousand Six Hundred & Thirty Five Only
113	dobut 40 amps DP RCCB	40	Each	2095.00	INR	83800.00	INR Eighty Three Thousand Eight Hundred Only
114	dobut 63 amps DP RCCB	40	Each	2640.00	INR	105600.00	INR One Lakh Five Thousand Six Hundred Only

115	Supplying and fixing 40 amps rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.	10	Each	2626.00	INR	26260.00	INR Twenty Six Thousand Two Hundred & Sixty Only
116	dobut 63 amps 4P RCCB	10	Each	2777.00	INR	27770.00	INR Twenty Seven Thousand Seven Hundred & Seventy Only
117	Supplying and fixing TP/4P sheet steel enclosure on surface/ recess for 415 volts "C" curve MCB complete with connections, testing and commissioning etc. as required.	10	Each	320.00	INR	3200.00	INR Three Thousand Two Hundred Only
118	Supplying and fixing 30 amps, 240 volts, TPN industrial type, socket, with 4 pole and earth, metel enclosed plug top along with 30 amps 'C' series, TP MCB, in sheet steel enclosure on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	10	Each	3048.00	INR	30480.00	INR Thirty Thousand Four Hundred & Eighty Only
119	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 A, "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	10	Each	1232.00	INR	12320.00	INR Twelve Thousand Three Hundred & Twenty Only
120	Making earth point with boring 18 Mt. deep with 80 mm dia G.I. pipe "B" class ISI. The top pipe 6 mt. length will be duly holed across the pipe at a distance of 15 cm apart in 4 rows. The each joint should be welded, 30 cm ² CI chamber masonary housing complete as per direction of site in charge complete.	2	Each	29113.0 0	INR	58226.00	INR Fifty Eight Thousand Two Hundred & Twenty Six Only
121	Supply and fixing of Chemical earthing set of minimum three electrods with HDGI heavy earthing pipe length -3 mtrs, outer pipe dia 76mm and wall thickness -3.96 mm, inner pipe dia dia -58 mm and wall thickness -2.65mm(B-Class), pipe with GI Strip 40mmX6mm from top to bottom and ineer pipe prefilled with growth hygroscopic gel.The work shall be completed by boring dia -100 mm, Depth -15 ft with backfill compound (25 Kg) containing: Silica(Sio2-17.49%), Alumina(AL2O3-6.8%), Iron oxide(FeO3-12.42%), Calcium Oxide(CaO-9.86%), Magnesium (MgO-2.65%), Potassium Oxide (K2O-0.63%), Sulphate (SO3-4.85%), Titanium Oxide (TiO2-5.63%), Zinc Oxide (ZnO2-0.068%), Copper Oxide (CuO-1.34%), Graphite-19%, Benotine-19.18% approximate. The Earthing shall be completed in all respect and tested on site for guranteed result of earth resisitance less than 0.1 ohms (otherwise payment will not be made) for a period of 01 years as a warranty.	1	Set	53737.0 0	INR	53737.00	INR Fifty Three Thousand Seven Hundred & Thirty Seven Only

122	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/coke and salt as required.	5	Set	6216.00	INR	31080.00	INR Thirty One Thousand & Eighty Only
123	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/coke and salt as required.	5	Set	11794.0 0	INR	58970.00	INR Fifty Eight Thousand Nine Hundred & Seventy Only
124	Supplying and laying 25 mm X 5 mm copper strip on surface/recess as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	10	Metre	1009.00	INR	10090.00	INR Ten Thousand &Ninety Only
125	Providing and fixing 25 mm x 5 mm copper strip at 0.50 meter below the ground as strip earth electrode, including connection/termination with brass nut, bolt, spring washer etc.as required.(Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm) on surface or in recess for connection including soldering etc. as required.	10	Meter	853.00	INR	8530.00	INR Eight Thousand Five Hundred & Thirty Only
126	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre bellow 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)	50	Metre	131.00	INR	6550.00	INR Six Thousand Five Hundred & Fifty Only
127	Providing and fixing G.I. tape 20 mm x 3 mm thick on parapet or surface of wall for lightning conductor complete including soldering, clamping, CC as required	50	Meter	163.00	INR	8150.00	INR Eight Thousand One Hundred & Fifty Only
128	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade upto 35 mm² size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.	10	Metre	323.00	INR	3230.00	INR Three Thousand Two Hundred & Thirty Only
129	dobut above 35 mm ² and upto 95 mm ²	10	Metre	338.00	INR	3380.00	INR Three Thousand Three Hundred & Eighty Only
130	dobut above 95 mm ² and upto 185 mm ²	10	Metre	352.00	INR	3520.00	INR Three Thousand Five Hundred & Twenty Only
131	dobut above 185 mm² and upto 400 mm²	10	Metre	396.00	INR	3960.00	INR Three Thousand Nine Hundred & Sixty Only
132	Laying/Removal of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of size upto35 mm² direct in ground including excavation and refilling the trench etc as required. but excluding sand cushioning and protective covering	20	Mtr	167.00	INR	3340.00	INR Three Thousand Three Hundred & Forty Only
133	do but 35 mm ² to 95 mm ² cable	5	Mtr	181.00	INR	905.00	INR Nine Hundred & Five Only

134	do but 95 mm² to 185 mm² cable	5	Mtr	196.00	INR	980.00	INR Nine Hundred & Eighty Only
135	do but 185 mm² to 400 mm² cable	5	Mtr	239.00	INR	1195.00	INR One Thousand One Hundred & Ninety Five Only
136	Supplying and making end termination with brass compression gland and aluminium lugs for 4 core 16 mm² (28mm) size of PVC insulated and PVC sheathed/ XLPE aluminium conductor cable of 1.1 kV grade as required.	10	Each	250.00	INR	2500.00	INR Two Thousand Five Hundred Only
137	dobut for 4 core 25 mm ² (28mm) PVC cable.	5	Each	250.00	INR	1250.00	INR One Thousand Two Hundred & Fifty Only
138	dobut for 3 ½ core 35 mm²(32mm) PVC cable.	20	Each	300.00	INR	6000.00	INR Six Thousand Only
139	dobut for 3 ½ core 50 mm²(35 mm) PVC cable	10	Each	329.00	INR	3290.00	INR Three Thousand Two Hundred & Ninety Only
140	dobut for 3 ½ core 70 mm²(38 mm)PVC cable	5	Each	368.00	INR	1840.00	INR One Thousand Eight Hundred & Forty Only
141	dobut for 3 ½ core 95 mm²(45 mm) PVC cable	5	Each	473.00	INR	2365.00	INR Two Thousand Three Hundred & Sixty Five Only
142	dobut for 3 ½ core 120 mm²(45 mm) PVC cable	5	Each	489.00	INR	2445.00	INR Two Thousand Four Hundred & Forty Five Only
143	dobut for 3 ½ core 240 mm²(62 mm) PVC cable	5	Each	809.00	INR	4045.00	INR Four Thousand &Forty Five Only
144	dobut for 3 ½ core 300 mm²(70 mm) PVC cable	5	Each	936.00	INR	4680.00	INR Four Thousand Six Hundred & Eighty Only
145	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for 4 core 16 mm ² PVC cable size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.	1	Each	1760.00	INR	1760.00	INR One Thousand Seven Hundred & Sixty Only
146	dobut for 4 core 25 mm² PVC cable.	1	Each	1988.00	INR	1988.00	INR One Thousand Nine Hundred & Eighty Eight Only
147	dobut for 4 or 3 ½ core 35 mm² PVC cable.	1	Each	1988.00	INR	1988.00	INR One Thousand Nine Hundred & Eighty Eight Only
148	dobut for 3 ½ core 50 mm² PVC cable	1	Each	2298.00	INR	2298.00	INR Two Thousand Two Hundred & Ninety Eight Only
149	dobut for 3 ½ core 70 mm² PVC cable	1	Each	2349.00	INR	2349.00	INR Two Thousand Three Hundred & Forty Nine Only
150	dobut for 3 ½ core 95 mm² PVC cable	1	Each	2478.00	INR	2478.00	INR Two Thousand Four Hundred & Seventy Eight Only
151	dobut for 3 ½ core 185 mm² PVC cable	1	Each	3683.00	INR	3683.00	INR Three Thousand Six Hundred & Eighty Three Only
152	dobut for 3 ½ core 240 mm² PVC cable	1	Each	4456.00	INR	4456.00	INR Four Thousand Four Hundred & Fifty Six Only
153	dobut for 3 ½ core 300 mm² PVC cable	1	Each	5507.00	INR	5507.00	INR Five Thousand Five Hundred & Seven Only

154	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core 120-185 mm², XLPE aluminium conductor cable of 11 kV(UE) grade as required.	1	Each	8947.00	INR	8947.00	INR Eight Thousand Nine Hundred & Forty Seven Only
155	dobut for 3 core 240- 300 mm ² XLPE cable	1	Each	11681.0 0	INR	11681.00	INR Eleven Thousand Six Hundred & Eighty One Only
156	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core 120-185 mm², XLPE aluminium conductor cable of 11 kV(UE) grade as required.	1	Each	15001.0	INR	15001.00	INR Fifteen Thousand &One Only
157	dobut for 3 core 240-300 mm² XLPE cable	1	Each	17166.0 0	INR	17166.00	INR Seventeen Thousand One Hundred & Sixty Six Only
158	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for 3 core 240-300 mm², XLPE aluminium conductor cable of 11 kV(UE) grade as required.	1	Each	19314.0 0	INR	19314.00	INR Nineteen Thousand Three Hundred & Fourteen Only
159	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core 240-300 mm², XLPE aluminium conductor cable of 33 kV grade as required.	1	Each	38628.0 0	INR	38628.00	INR Thirty Eight Thousand Six Hundred & Twenty Eight Only
160	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for 3 core 240-300 mm², XLPE aluminium conductor cable of 33 kV grade as required.	1	Each	78693.0 0	INR	78693.00	INR Seventy Eight Thousand Six Hundred & Ninety Three Only
161	Erection of steel tubular or rail pole strut in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling and secured with holding clamps, bolts, nuts, etc. as required.	5	Each	7611.00	INR	38055.00	INR Thirty Eight Thousand &Fifty Five Only
162	Dismantling of pole/ street light standard/ strut embedded in brick ballast foundation etc. as required.	5	Each	2221.00	INR	11105.00	INR Eleven Thousand One Hundred & Five Only
163	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	80	Each	342.00	INR	27360.00	INR Twenty Seven Thousand Three Hundred & Sixty Only
164	Supplying and fixing penta stepped type electronic fan regulator on the existing switch box including connections etc in all respect as required.	10	Each	293.00	INR	2930.00	INR Two Thousand Nine Hundred & Thirty Only

165	Dismantling of ceiling fan and painting the same with with one or more coats of spray painting with synthetic enamel paint of approved brand and manufacture to give an even shade, including cleaning of surface with detergent and replacing the damaged rubber reel, nuts and bolts with washers and safety pins, reinstalling the same as required.	10	Each	221.00	INR	2210.00	Only
166	Supplying and embedding 32 mm dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required	20	Metre	324.00	INR	6480.00	INR Six Thousand Four Hundred & Eighty Only
167	Supplying and embedding 40 mm dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required	10	Metre	368.00	INR	3680.00	INR Three Thousand Six Hundred & Eighty Only
168	Providing, laying and fixing B class medium ISI 50 mm dia G.I. pipe in ground complete with G.I. fittings including boring/ trenching (75 cm deep) and re-filling etc as required	30	Metre	536.00	INR	16080.00	INR Sixteen Thousand &Eighty Only
169	dobut G.I. Pipe 80 mm dia.	20	Metre	803.00	INR	16060.00	INR Sixteen Thousand &Sixty Only
170	dobut G.I. Pipe 100 mm dia.	10	Metre	1113.00	INR	11130.00	INR Eleven Thousand One Hundred & Thirty Only
171	Excavation for cable trenches in soft soil, depth upto 1.2 m including dressing of sides lift upto 1.5 m, including getting out the excavated soil, refilling with sand and or good soil after laying of cable/ pipe etc in layers of 20 cm, ramming, watering and disposal of surplus excavated soil as directed, within a lead of 50 metres	10	CuM	546.00	INR	5460.00	INR Five Thousand Four Hundred & Sixty Only
172	Providing and making of steel / rail pole collar with cement concrete (1 cement : 3 coarse sand : 6 stone aggregate 20mm) of specified size and shape including form work, plastering if required, curing etc. as required (volume of pole/pipe not to be deducted).	5	CuM	6839.00	INR	34195.00	INR Thirty Four Thousand One Hundred & Ninety Five Only
173	Providing brick work (in width 225 mm or more) with F.P.S. bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) at all levels.	5	CuM	6362.00	INR	31810.00	INR Thirty One Thousand Eight Hundred & Ten Only
174	Providing 15mm thick cement plaster of mix 1:4 (1 cement : 4 fine sand) at all levels.	5	SqM	306.00	INR	1530.00	INR One Thousand Five Hundred & Thirty Only
175	Re-lettering with black Japan paint of approved brand and manufacture.	10	Per letter per cm height	4.70	INR	47.00	INR Forty Seven Only
176	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.	20	P/Kg	101.75	INR	2035.00	INR Two Thousand &Thirty Five Only

177	Supplying and installing of 100 mm width X 50 mm depth X 1.6 mm thickness perforated painted with powder coating M.S. cable trays with perforation not more than 17.5% in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.	5	Meter	476.00	INR	2380.00	INR Two Thousand Three Hundred & Eighty Only
178	do150 mm width X 50 mm depth X 1.6 mm thickness	5	Meter	531.00	INR	2655.00	INR Two Thousand Six Hundred & Fifty Five Only
179	do200 mm width X 50 mm depth X 1.6 mm thickness	5	Meter	597.00	INR	2985.00	INR Two Thousand Nine Hundred & Eighty Five Only
180	do450 mm width X 50 mm depth X 2.0 mm thickness	5	Meter	700.00	INR	3500.00	INR Three Thousand Five Hundred Only
181	Disposal of building rubbish / malba / similar unserviceable, dismantledor waste materials by mechanical means, including loading,transporting, unloading to approved municipal dumping ground or asapproved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	50	Cu.M.	138.85	INR	6942.50	INR Six Thousand Nine Hundred & Forty Two and Paise Fifty Only
182	Supply, erection, testing and commissioning of factory fabricated metal clad dust and vermin proof- floor mounted 500A cap 440 V, 50 HZ,3 phase and neutral electric feeder pillar double door 400 mm depth duly powder coated spray painted with separate chamber for instruments (e.g. ampere meter, volt meter, frequency meter, KWH meter etc.) & switch gears (like I/C & O/G MCB's/MCCB's, C/o switch with extentionable/rotary handle etc.). The feeder pillar/ panel shall have 500Amp, 415V TPN electrolyte aluminium bus bar as per IS 8623 insulated with heat shrink sleeve and mounted on nonhygroscopic supports with detachable side with hinge and locking. The switches shall be completed with lug and cable gland of suitable size of cables with connection as required. The feeder pillar should be made with 2 mm CRCA sheet. The feeder pillar should be fixed on M.S. channel 75mm X 40mm X 6mm size and mounted on M.S. angle iron 50mm X 50mm X 5mm size frame 450mm height with cross support completed as per direction of site in charge.	50	Sq.Ft.	3335.00	INR	166750.00	INR One Lakh Sixty Six Thousand Seven Hundred & Fifty Only
183	do but 500Amp, 600 mm depth	50	Sq.Ft.	3717.00	INR	185850.00	INR One Lakh Eighty Five Thousand Eight Hundred & Fifty Only
184	do but 800Amp, 400 mm depth	20	Sq.Ft.	3829.00	INR	76580.00	INR Seventy Six Thousand Five Hundred & Eighty Only
185	do but 800Amp, 600 mm depth	20	Sq.Ft.	4211.00	INR	84220.00	INR Eighty Four Thousand Two Hundred & Twenty Only
186	do but 1600Amp, 1000 mm depth with base M.S.channel size 125mmX65mmX6mm.	5	Sq.Ft.	4063.00	INR	20315.00	INR Twenty Thousand Three Hundred & Fifteen Only
187	SITC of wall mounting fan 400 mm sweep revolving type with speed regulator	2	Each	2510.00	INR	5020.00	INR Five Thousand &Twenty Only

188	SITC of 240 V, 250 MM sweep PVC body exhaust fan in existing opening and making good finish with plaster and all masonary work, connection with 1.5 sqmm PVC insulated, copper conductor, single core etc.	20	Each	1877.00	INR	37540.00	INR Thirty Seven Thousand Five Hundred & Forty Only
189	SITC of 240 V, 450 MM sweep, 900 RPM heavy duty exhaust fan M.S. body in existing opening including making good finish the damage, connection with 1.5 mm ² PVC insulated, copper conductor, single core etc.	5	Each	4906.00	INR	24530.00	INR Twenty Four Thousand Five Hundred & Thirty Only
190	SITC of 240 V, 300 MM sweep, 900 RPM heavy duty exhaust fan M.S. body in existing opening including making good the damage, connection with 1.5 mm ² PVC insulated, copper conductor, single core etc.	5	Each	3169.00	INR	15845.00	INR Fifteen Thousand Eight Hundred & Forty Five Only
191	SITC of 240 V, 450 MM sweep, heavy duty wall fan (air circulator) including making good the damage, connection with 1.5 mm ² PVC insulated, copper conductor, single core etc.	5	Each	6777.00	INR	33885.00	INR Thirty Three Thousand Eight Hundred & Eighty Five Only
192	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM (tolerance as per IS: 374-2019), THD less than 10%, electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required.	10	Each	2688.00	INR	26880.00	INR Twenty Six Thousand Eight Hundred & Eighty Only
193	SITC of single phase, BEE 5 star rating, a.c. ceiling fan 1200 mm sweep 45-52 W, 240 Volt, 50 Hz, including wiring up to down rods of standard length with 1.5 sq mm FRLS PVC insulated copper conductor single core cable etc. as required after removing old / defective ceiling fan. old/ defective ceiling fans have to send in the central store through concerned J.E. /site Incharge.	10	Each	2942.00	INR	29420.00	INR Twenty Nine Thousand Four Hundred & Twenty Only
194	SITC of single phase, a.c. ceiling fan 1400 mm sweep, 240 Volt, 50 Hz, including wiring up to down rods of standard length with 1.5 mm ² FRLS PVC insulated copper conductor single core cable etc. as required after removing old / defective ceiling fan. old/ defective ceiling fans have to send in the central store through concerned J.E. /site Incharge.	10	Each	2803.00	INR	28030.00	INR Twenty Eight Thousand &Thirty Only

195	SITC of LED light fitting 1200mm length minimum 2000Lumen with mounting rail box / aluminium extruded Batten suitable for surface, wall and conduit mounting with acessories and prewired with both side end cap equivalent to Havells cat no.LUMILINEPLUSBS20WLED865SPCSS. Minimum Two years warranty should be provided. SITC of suspended mounting LED Light fitting including driver	80	Each	916.00	INR	73280.00 75810.00	INR Seventy Three Thousand Two Hundred & Eighty Only INR Seventy Five Thousand Eight
196	equivalent to Havells cat no. DESTELLO50LP/S36WLED857SPMMAHWH with suspension kit as required complete all connections.	10	Each	7581.00			Hundred & Ten Only
197	SITC of LED light fitting 600mm length minimum 1000Lumen with mounting rail box / aluminium extruded Batten suitable for surface, wall and conduit mounting with acessories and prewired with both side end cap equivalent to Havells Cat no. LUMILINEPLUSBS10WLED865SPCSS. Minimum Two years warranty should be provided.	10	Each	696.00	INR	6960.00	INR Six Thousand Nine Hundred & Sixty Only
198	SITC of Round recess mounted LED slim/sleek down light fitting minimum 1000 lumen suitable for Armstrong/Grid ceiling equvilant to Havells cat no. ENDURAHODLR12WLED857MOD.Minimum Two years warranty should be provided and certificate should be endorsed by OEM or his representative	10	Each	1770.00	INR	17700.00	Hundred Only
199	SITC of 2'x2' fully diffused recess mounting LED luminaire, minimum 3600 lumen as light source, suitable for Armstrong/Grid Ceiling complete as required includung all connections equivalent to Havells cat no. VENUSNEOHE2X2PLR18-42WLED857MOD. Minimum Two years warranty should be provided. Warranty certificate should be endorsed by OEM or his representative.	50	Each	4041.00	INR	202050.00	INR Two Lakh Two Thousand &Fifty Only
200	SITC of 1'X1' square surface mounted LED light fitting with minimum lumen 1600 soft-light and glare free symmetrical illumination and all accessories pre-wired including connection complete in all respect equivalent to Havells cat No.PLUTOSURFA CE1X1PLS15WLED857S. Minimum Two years warranty should be provided and certificate should be endorsed by OEM or his representative	20	Each	2469.00	INR	49380.00	Hundred & Eighty Only
201	Supply and fixing of retrofit LED tube rod 18 watt with built in motion sensor and necessary arrangement to reduce the power consumption automatically to 3.5 watts in case of no occupancy or motion but instantly go to full light i.e. 18 watt as soon as some motion observed, complete with connection as required. Minimum Two years warranty should be provided.	20	Each	1585.00	INR	31700.00	INR Thirty One Thousand Seven Hundred Only

202	SITC of LED street light made up of pressure die cast aluminium housing with toughened glass / polycarbonate covers and individual high power LEDs with secondary optics, minimum 4000 lumen, IP66 protection, impact resistance of IK07 & 10 KV external SPD on pole, equivalent to Havells Cat No.ENDURAPEARLNEOSL40WLED757PASYTOPC. Minimum Two years warranty should be provided. Warranty certificate should be endorsed by OEM or his representative.	10	Each	4753.00	INR	47530.00	Hundred & Thirty Only
203	SITC of LED Bollard light 5700k,IP65, 8-10 Watt equivalent to LED Havells Cat No. CONEBLS8WLED857PSYMTOPC (0.6 M)). Minimum Two years warranty should be provided. Warranty certificate should be endorsed by OEM or his representative.	10	Each	5747.00	INR	57470.00	INR Fifty Seven Thousand Four Hundred & Seventy Only
204	Supply and fixing of LED post top IP 65 latern spun aluminium landscape luminaire, symmetrical light distribution, clear/ opal acrylic diffuser, stainless steel hardware, 35 watt including connections equivalent to Havells Cat No.CORALPT35W LED757PSYMTOPC / RUBYPT35WLED757 PSYMTOPC. Minimum Two years warranty should be provided.	20	Each	9964.00	INR	199280.00	INR One Lakh Ninety Nine Thousand Two Hundred & Eighty Only
205	SITC of recess mounting LED strip including driver equivalent to Phillips cat no. LED Strip SKYCove 5 M WW with driver/LED Strip SKYCove 5 M CDL. Minimum Two years warranty should be provided.	10	Each	337.00	INR	3370.00	INR Three Thousand Three Hundred & Seventy Only
206	Supplying and fixing 4P sheet steel enclosure on surface/ recess for 415 volts MCCB upto 250Amps complete with suitable bus bar for neutral including connections, testing and commissioning etc. as required.	5	Each	1628.00	INR	8140.00	INR Eight Thousand One Hundred & Forty Only
207	SITC of Load Bank Panel Board double door 06 way suitable for 400 Amps, 415 V AC, 50Hz main bus bar capacity, neutral and earth bar combined with removal top and bottom gland plate provided for ease of installation and cabling confirming to IEC BS EN 61439-1&2 having degree of protection IP:42 complete as required.	5	Each	61016.0 0	INR	305080.00	Only
208	Supply and laying of aluminium conductor, XLPE insulated, armuored, PVC sheathed cable, 1100V grade, 4 core 10 mm² at a depth of 750mm below ground level over a cushion of 75mm thick sand alround and protected with burnt bricks on sides and on top. On surface, the cable run shall be fixed on M.S. clamps etc. of suitable size or as directed by the Engineer-Incharge, complete in all respects. The armouring of the cable shall be properly connected with the earth conductor by clamps etc. The cable shall be laid by boring the road as required and compaction of soil & repairing of surface in prior shape shall be done properly.	50	Metre	420.00	INR	21000.00	INR Twenty One Thousand Only

209	dobut 4 core 16 mm ² PVC cable.	50	Metre	433.00	INR	21650.00	INR Twenty One Thousand Six Hundred & Fifty Only
210	dobut 4 core 25 mm² PVC cable.	20	Metre	474.00	INR	9480.00	INR Nine Thousand Four Hundred & Eighty Only
211	dobut 3 ½ core 35 mm² PVC cable.	5	Metre	494.00	INR	2470.00	Seventy Only
212	dobut 3 ½ core 50 mm² PVC cable	5	Metre	559.00	INR	2795.00	INR Two Thousand Seven Hundred & Ninety Five Only
213	dobut 3 ½ core 70 mm² PVC cable	5	Metre	631.00	INR	3155.00	INR Three Thousand One Hundred & Fifty Five Only
214	dobut 3 ½ core 95 mm² PVC cable	5	Metre	701.00	INR	3505.00	INR Three Thousand Five Hundred & Five Only
215	dobut 3 ½ core 120 mm² PVC cable	5	Meter	806.00	INR	4030.00	INR Four Thousand &Thirty Only
216	dobut 3 ½ core 150 mm² PVC cable	5	Metre	890.00	INR	4450.00	INR Four Thousand Four Hundred & Fifty Only
217	dobut 3 ½ core 185 mm² PVC cable	5	Metre	1013.00	INR	5065.00	INR Five Thousand &Sixty Five Only
218	dobut 3 ½ core 240 mm² PVC cable	5	Metre	1229.00	INR	6145.00	INR Six Thousand One Hundred & Forty Five Only
219	dobut 3 ½ core 300 mm² PVC cable	5	Metre	1414.00	INR	7070.00	INR Seven Thousand &Seventy Only
220	dobut 3 ½ core 400 mm² PVC cable	5	Metre	1688.00	INR	8440.00	INR Eight Thousand Four Hundred & Forty Only
221	Supply and fixing of RJ 45 internet socket on existing modular plate complete in all respect.	40	Each	480.00	INR	19200.00	INR Nineteen Thousand Two Hundred Only
222	S/F of 3 mm thick phenolic laminated bakelite sheet including cutting as required with brass machine screw and cup washer complete.	5	Sq.Ft.	195.00	INR	975.00	INR Nine Hundred & Seventy Five Only
223	S/fixing Thermostate for geyser, heavy duty - 450mm long as required for proper completion of work for the geysers rating 25 -50 Ltrs.	5	Each	414.00	INR	2070.00	INR Two Thousand &Seventy Only
224	S/fixing Element for geyser, heavy duty - 450mm long as required for proper completion of work for the geysers rating 25 -50 Ltrs.	5	Each	840.00	INR	4200.00	INR Four Thousand Two Hundred Only
225	P/fixing stainless steel wired connection pipe for geyser, heavy duty - 450mm long as required for proper completion of work for the geysers rating 25 -50 Ltrs.	5	Each	495.00	INR	2475.00	INR Two Thousand Four Hundred & Seventy Five Only
226	P/fixing PVC connection pipe for geyser, heavy duty - 450mm long as required for proper completion of work for the geysers rating 25 -50 Ltrs.	5	Each	303.00	INR	1515.00	INR One Thousand Five Hundred & Fifteen Only
227	SITC of Water Heater(Geyser) rating of 25 ltrs 5 star complete with all connections.	1	Each	9516.00	INR	9516.00	Sixteen Only
228	SITC of Water Heater(Geyser) rating of 35 ltrs 5 star complete with all connections.	4	Each	11414.0 0	INR	45656.00	INR Forty Five Thousand Six Hundred & Fifty Six Only

229	SITC of Water Heater(Geyser) rating of 50 ltrs 5 star complete with all connections.	1	Each	13446.0 0	INR	13446.00	INR Thirteen Thousand Four Hundred & Forty Six Only	
230	Supply and fixing of 20-25mm PVC batten	100	Meter	35.00	INR	3500.00	INR Three Thousand Five Hundred Only	
Total in	Total in Figures					4468804.50	INR Forty Four Lakh Sixty Eight Thousand Eight Hundred & Four and Paise Fifty Only	
Quoted	Rate in Figures		Select			0.00	INR Zero Only	
Quoted Rate in Words			INR Zero Only					

Note:

- 1. Vendors should not send any hardcopy of bids and other documents to IIT Roorkee.
- 2. Vendor will arrange safety gears such as safety shoes, safety helmets, gloves etc for the manpower deployed at his own cost. If the manpower is found not wearing safety gears, a penalty of Rs. 200 per violation will be imposed by the EIC.

Signature and stamp of the bidder

Institute Engineer, E&W, IIT Roorkee