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भारतीय प्रौद्योगिकी संस्थान धारवाड

Indian Institute of Technology Dharwad

Near High Court, PB Road, Dharwad-580011

TEL NO: +91 836 2212 839

Tender for providing Annual Service Maintenance Contract (ASMC) in respect of Electrical and Miscellaneous works for a period of one year to IIT Dharwad WALMI Campus

Tender no: IITDH/MMD/IPS/2020-21/105

INDIAN INSTITUTE OF TECHNOLOGY DHARWAD
Near High Court, PB Road, Dharwad-580011
TEL NO: +91 836 2212 839

Tender no.: IITDH/MMD/IPS/2020-21/105

NOTICE INVITING TENDER

Name of the work:	Tender for providing Annual Service Maintenance Contract (ASMC) in respect of Electrical and Miscellaneous works for a period of one year to IIT Dharwad WALMI Campus	
Type of Tender:	Open Tender Enquiry	
Estimate Value:	Rs.29.99 lakhs approx.	
Cost of tender documents	Free of cost	
EMD:	Rs.60,000/- (DD/PO in favour of The Registrar, IIT Dharwad) to be attached with the tender as separate sealed envelope.	
Issue of tender:	23 th October, 2020	
Last date for submission of tender:	Date: 13 th November, 2020 Time: 10:00 AM	
<u>Two Bid System:</u> -		
<p>The two bid system will be followed for this tender. In this system bidder must submit their offer in separate sealed envelopes as – Technical Bid and Financial Bid.</p> <p>Separate technical bid and financial bid envelopes should be clearly marked as "Envelope No. 1 - Technical Bid" and "Envelope No. 2 - Financial Bid".</p> <p>Both these sealed covers are to be put in a bigger cover which should also be sealed and duly super-scribed with our Tender No. & Due Date and to be submitted to the concern department/section mentioned in tender document.</p> <p>Note: The technical offer should not contain any price information. If the price quoted is submitted in technical bid, the tender will be rejected at the sole discretion of IIT Dharwad. Initially Technical Bids will be opened and evaluated by the works committee. Financial bids of only Technically qualified bidders will be opened later.</p> <p>Contract/ Work Order will be awarded to the lowest bidder (L1) identified.</p>		
Covers Information / Submission of Bids		
Cover No.	Cover Type	Description
1	Technical	EMD, Technical Specification, Tender Document, Schedule of Requirement and Compliance, Bidders Information/Indian Agent Information, Previous Work Orders etc.
2	Financial	Financial Bid
Opening of technical bid:	Date: 13 th November, 2020 Time: 10:30 AM	
Schedule of Opening of Commercial Bids	Schedule for opening of Financial Bid will be notified only to the bidders qualifying the Technical Bid. Presence of the bidder or his/her authorized representative at the time of opening of the Commercial bid is highly preferable.	
Contacting Authority:	The Assistant Registrar (Works) Near High Court, P B Road Dharwad-580011 E-mail: armm@iitdh.ac.in Telephone: 91-836-2212-839	

Tender no.: IITDH/MMD/IPS/2020-21/105

GENERAL CONDITIONS OF CONTRACT

Sealed tenders are hereby invited on behalf of the Indian Institute of Technology, (IIT) Dharwad, for providing Annual Service Maintenance Contract (ASMC) in respect of Electrical and Miscellaneous works for a period of one year to IIT Dharwad WALMI Campus, Karnataka.

2.QUALIFICATION CRITERIA:

Only those bidders fulfilling the following Eligibility Criteria should participate in the tender: -

- 2.1 Bidders should be registered Government Contractor of Class I and above and must be in the business of providing AMC in respect of Electrical works since 5 years or more (i.e. the firm must be in the business since October 2015 or earlier).
- 2.2 The Bidder must have carried out at least one similar annual Electrical AMC work of minimum Rs.25 lakhs in reputed organizations/IITs/IIMs/Govt. offices/PSUs/Central Universities etc. during a period of last 5 years (i.e. must have successfully completed the work during October 2015 till date). Completion certificates etc. to this effect are required to be enclosed.
- 2.3 A Certificate/Undertaking on the letter head of the Company to the effect that the bidder has not been blacklisted anywhere in India or abroad by any organization. A self-certification to this effect is required to be enclosed.
- 2.4 The Bidder should be registered with concerned statutory authorities for GST/Income Tax etc. The bidder should furnish relevant GST registration documents and PAN/TAN copies along with the bank details of the firm.

Any prospective bidder, not satisfying any of the above mentioned qualification criteria shall be disqualified on technical grounds and the price bid of such disqualified bidder will not be considered for this tender.

3. Tender documents can be obtained from IIT Dharwad website: _

http://www.iitdh.ac.in/announcements_worktenders.php

4. Tenders are invited under Open Tender Enquiry and two bid system for Annual Service Maintenance Contract (ASMC) in respect of Electrical and Miscellaneous works for a period of one year to IIT Dharwad. Technical Bid along-with supporting documents, Earnest Money Deposit (in form of DD/Bankers Cheque in favour of **The Registrar, IIT Dharwad** payable @ Dharwad) shall be submitted in separate sealed envelopes and then encased inside one sealed envelope super scribed 'Technical Bid for providing Annual Service Maintenance Contract (ASMC) in respect of Electrical and Miscellaneous works for a period of one year to IIT Dharwad WALMI Campus'. All the pages of this tender document along with necessary Appendices (as applicable) duly signed and stamped, will form the technical bid.

5. The bidder must submit the following documents/information within the Technical Bid (all 6 criteria to be mandatorily fulfilled for technical qualification):

- a. The entire tender document duly signed on each page.
- b. Copy of the valid PAN Card, Goods & Sales Tax Registration be forwarded.
- c. Proof of establishment of company/business for a period of more than 5 years.
- d. The Bidder must have carried out at least one similar annual Electrical AMC work of minimum Rs.25 lakhs in reputed organizations/IITs/IIMs/Govt. offices/PSUs/Central Universities etc. during a period of last 5 years (i.e. must have successfully completed the work during October 2015 till date).
- e. A Certificate/Undertaking on the letter head of the Company to the effect that the bidder/Manufacturer had not been blacklisted anywhere in India or abroad by any organization.
- f. In case EMD exemption is sought under SME/MSME/NSIC, Valid certificate explicitly mentioning nature of operation shall be forwarded in addition.

6. The Price Bid as per Annexure-2 with this tender document, should be duly filled, stamped and signed by the authorized signatory of the agency/firm/company and sealed in a separate envelope super scribing 'Financial Bid for providing Annual Service Maintenance Contract (ASMC) in respect of Electrical and Miscellaneous works for a period of one year to IIT Dharwad WALMI Campus'.

7. The Technical bid and the Price bid shall be sealed in one envelope super scribing 'Tender for providing Annual Service Maintenance Contract (ASMC) in respect of Electrical and Miscellaneous works for a period of one year to IIT Dharwad WALMI Campus'.

8. The technical bids shall be opened as per schedule placed at Notice Inviting Tender (NIT). The vendors who are short listed after qualifying technical bid evaluation will be intimated the date of opening of price bids subsequently through proper means. IIT Dharwad reserves the right to reject any or all the tenders/bids without assigning any reason thereof.

9. Tenders are to be submitted in a serially numbered & bounded manner. The tender should be submitted in the **tender box by the tenderer kept in Office of Assistant Registrar up to 10:00 AM** on or before last date and time of bid submission as mentioned in Notice Inviting Tender (NIT) and will be opened by Assistant Registrar or his authorized representatives in his office / any other place in the Institute on date and time of tender opening as mentioned in NIT, in the presence of such tenderers who desire to attend.

10. Tenders should be addressed to Assistant Registrar, Indian Institute of Technology Dharwad, Near High Court, PB Road Dharwad 580011. The name of the tenderer and the name of the work must be noted on the above.

11. Income Tax PAN number & GST registration number is to be submitted along-with the bid.

12. The tenderers should write in figures as well as in words for the rates quoted by them on the proper form of the tender. All corrections / over writings must be attested by the dated initials of the contractor. The tenderer is advised to avoid offering discount /rebate in the covering page or at the end of the schedule. Instead the same can be incorporated in the unit rate by reducing the unit rates. If at all offered, the discount / rebate percentage offered is to be written in words such as Five percent / point Five percent etc.

13. The rates quoted shall be inclusive of all taxes, royalties etc. The contractor shall quote for all the items whose rates are asked and not leave any blanks all taxes including GST shall be borne by the contractor.

14. The offer should be valid for 90 days from the date of opening for the purpose of issue of acceptance letter. The amount quoted herein after referred to as Base rate must be firm and inclusive of all charges of any kind and inclusive of any kind of liability from / to any authority. GST shall be mentioned separately and must not form part of base price. There will be no extra payment or payment of escalation in the

amount under any circumstances whatsoever. Statutory taxes will be deducted at source from the payment against the bill amount.

15. No extra item or substitute item shall be allowed out without prior approval in writing.

16. Work has to be carried out in consultation with the representative as authorized by IIT Dharwad.

17. The tenderer should submit the requisite interest free Earnest Money Deposit (EMD) by pay order or Demand Draft in favour of **The Registrar, IIT Dharwad**. Tenders not accompanied by the Earnest Money Deposit shall not be considered. The EMD of unsuccessful tenderers will be returned within one month of award of work. In case EMD exemption is sought under SME/MSME/NSIC, Valid certificate from MSME explicitly mentioning the tender work herein, is required to be submitted.

18. The full value of Earnest Money Deposit is to be absolutely forfeited to the Director, IIT Dharwad or his authorized representative, with prejudice to any other rights or remedies to the Director, IIT Dharwad or his authorized representative, if the contractor fails to commence the work within 15 days continuously from the schedule date of commencement specified.

19. The Earnest money deposit paid at the time of tender, will be released after payment of final bill.

20. No part of the contract shall be sublet without written permission of IIT Dharwad nor shall transfer be made to power of Attorney authorizing others to receive payment on contractor's behalf.

21. IIT Dharwad reserves the right to reject any tender or all the tenders without assigning any reason therefore.

22. The Contractor shall comply with the provisions of all Acts, Statutes, Rules, Regulations etc. of the Central and State Government as the case may be that may apply to his case and if necessary, get himself duly registered as required by the said Acts, Statutes, Rules, Regulations etc.

23. The contractor for the work shall be liable to pay applicable tax (including Taxes on works contract to state Government) if any that may be levied by the State or Union Government. Any request contrary to this will not be accepted.

24. Period of ASMC: Initially for a period of one year from the date of award of work order. The period of AMC may be extended subject to the satisfactory performance of the contractor.

25. Terms of payment: As per the measurements at site and on certification of the site engineer.

- a) The contractor shall submit his monthly bill in triplicate along with monthly muster sheet.
- b) The payment shall be released through NEFT/RTGS payment system only in the bank account of the contractor after necessary deduction of statutory dues.
- c) TDS and other Statutory taxes shall be deducted at the source from the monthly bills.
- d) 5% of the bill amount (from all monthly bills) will be retained by IIT Dharwad as Security Deposit. The same shall be released after successful completion of the contract.

26. It shall be open to the Institute to abandon or give up at any stage of the construction of any of the said works or any part thereof. In the event of such abandonment or giving up or in the event of termination of the agreement, the Contractor shall be paid up to the work performed by then.

27. Deviation, Extra Items & Approvals for Pricing:

In case of execution of any extra items(s), apart from the BOQ, contractor must intimate the office of Dean (IPS) to obtain prior sanction for carrying out the work along with the quantities & rates. Thereafter, the contractor may submit the bills as per the usual practice of submission of RA bills.

DEVIATION LIMIT FOR THE CONTRACT ITEMS IS 50%.

In case of contract items which exceed the limit of 50%, the contractor must intimate the office of Dean (IPS) to obtain prior sanction for carrying out the work along with the quantities & rates. Thereafter, the contractor may submit the bills as per the usual practice of submission of RA bills.

28. Termination of contract: If the Contractor fails to perform any of its obligations under this agreement or if Institute is dissatisfied with the services of the Contractor, Institute may issue seven days' written notice intimating the Contractor of their failures or deficiencies and calling upon Contractor to rectify within such time as may be specified in the notice and if the Contractor fails to perform such obligation or make good such deficiencies as pointed out to the Contractor in the notice, Institute may terminate the services of Contractor under this agreement. Institute may also terminate the Contract hereunder:

- i) if the firm is adjudged bankrupt or
- ii) if they make a general assignment for the benefit of their creditors or
- iii) if a receiver is appointed on account of their insolvency or
- iv) they disregard law, ordinances, rules, regulations or orders of any public authority having jurisdiction on the works.

The termination shall be without prejudice to all rights, liabilities and remedies that have arisen or accrued till date of such termination or that may arise on account of such termination and Institute may get the project completed by whatever method they may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment, if due, until the loss, damage or expense incurred by Institute due to breach of this agreement by Contractor have been settled.

In case the Contractor abandons the work during the course of the project, the Institute has the right to appoint an alternate Contractor or make an arrangement for carrying out the work of Contractor, at the risk and cost of the Contractor. Traveling / daily allowances shall not be payable to the Contractor, its representatives, officials and consultants engaged by it for their visit to construction site, offices of local authorities, Employer's office or any other place in Dharwad.

The scope of work broadly described herein and assigned to Contractor, as their area of responsibility is inclusive of all constancy and other services required in connection with the completion of work whether specifically mentioned herein or not and rendering such constancy services will not entitle the Contractor to charge any additional fees in as much as the same are included in the overall professional fees payable to them.

29. Liquidated Damages Clause: If any delay in execution of the works is attributable to the acts or omissions and commissions of Contractor Institute shall be entitled to recover liquidated damages at the rate of 0.5% of the total fees per week of delay limited to maximum of 10% of the total actual fees payable.

30. Professional indemnity: Contractor warrants that it shall exercise high degree of care and diligence in rendering the services pursuant to this agreement and that; such services shall be of a quality and standard satisfactory to Institute. The Contractor shall indemnify Institute from any damage or loss arising from such lack of care and diligence or arising out of any unsatisfactory performance of service by Contractor. The contractor is required to obtain a Contractor All Risk (CAR) policy for successful and safe completion of project. Contractor shall provide a copy of this policy to Institute showing that such insurance has been taken and being maintained and that all the premia thereon have been paid. A certified copy of such insurance policy shall be deposited with Institute.

31. Dispute Settlement: In case of any dispute or difference arise between the parties during the progress of or after construction of this contract or touching or relating either to the said buildings or works, or to any other matter or thing arising directly or indirectly under this contract, then and in such an event the same shall be referred to Director, IIT Dharwad as the SOLE ARBITRATOR who shall alone consider and determine the same, whose decision / award shall be binding and conclusive upon both the said parties and this clause shall be deemed a submission within the meaning of Arbitration and Conciliation Act 1996 or Statutory modification or re-enactment thereof. It is specifically agreed that the Contractor shall continue to render its services provided herein with all the due diligence, professional skill and tact notwithstanding that any matter, question or dispute has been referred to arbitration. The venue of Arbitration proceedings shall be Dharwad. It is further agreed between the parties as hereto that the Dharwad Courts alone shall have the exclusive jurisdiction.

32. Site: The contractor shall remove all surplus materials, debris etc. out of the IIT Campus from the site of work on completion work and will hand over the site clean before the bill is processed for final payment. Dismantled materials if any (declared by Engineer-in-charge of the work) shall be returned to the Estate/ Electrical stores by the contractor at his own cost. The disposal of material shall be done in environmental friendly way and complying with the local rules and regulations.

33. Security:

a. Movement of contractor's materials:

Any materials which are removed from the site of work and are required to be taken out from the IIT campus, the contractor should follow the following procedure:

The contractor shall apply in writing to the Engineer- in-charge the details of the materials to be removed including which are rejected etc. This application shall be endorsed by the engineer in charge or his authorized representatives. The materials shall only be allowed to go out of IIT campus after counter signature of the security officer and checked at the gate. No materials/tools will be allowed to be brought on holidays/Saturdays/Sundays inside the campus. Contractors can bring the materials/tools/between 0900 hours and 1700 hours on any working day (Monday to Friday). This may please be noted.

b. Search:

Thorough search of all persons and transport shall be carried out at each gate and for as many times as gate is used for entry or exit and may also be carried out at any time or any number of times at the works site within the restricted area.

c. Working Hours:

The units controlling restricted areas usually work during five days in the week and remain closed on Saturday and Sundays. The working hours available to contractor's labour and staff are however appreciably reduced because of the time of entry and exit during working hours. The exact working hours, working days and non-working days observed for the restricted areas where works are to be carried out shall be deemed to have been ascertained by the contractor before submitting the tender. The tenderer's attention is invited to the fact that the total number of working hours for units are prescribed in regulations and no work beyond the prescribed working hours shall be permitted.

d. Entry and Exit:

The contractor, his agents, representatives, workmen, etc. and his materials, carts, trucks or other means of transport, etc. will be allowed to enter through and leave from only such gate or gates and at such times as the concerned authorized in charge of the restricted area may, at their sole discretion, permit. Contractor's authorized representatives, if required, are to be present at the places of entry and exit for the purpose of identifying his carts, trucks, etc. to the personnel in charge of the security of the restricted area.

e. Labour Law:

The work will be executed strictly following the Labour Laws of Central Govt & State Govt as may be applicable.

34. Scope of Work

- a. To maintain all electrical points, units etc. under the custody of IIT Dharwad in WALMI campus and the buildings, flats, etc. taken on lease by IIT Dharwad and also to Operate and Maintain electrical DG Sets at IIT Dharwad.
- b. The contractor posted should attend and available in the IIT Dharwad WALMI campus to attend the work 24x7 on all days.
- c. Electrical installation means lights, fans, equipment, generators, blowers, compressors, motors, pumps, electrical wirings, switches, plugs, starters, DB Boxes, MCB's, Main switches etc.
- d. It will be the duty of the contractor to see that street lights are operated regularly, exhaust fans and other non R&D electronic equipment's and machineries are operated smoothly.
- e. The contractor will monitor power supply voltage regularly. It will be the duty of the contractor to see that the generator which is under AMC (Annual Maintenance Contract) is maintained in excellent condition and switch on the generator as and when the power supply fails or on other demands and ensure continuous supply of power round the clock.
- f. The contractor should ensure that all the fans and electrical fittings need to be cleaned regularly at least once in a month.
- g. The contractor possessing valid license of class I and above and having enough work experience shall employ necessary number of qualified, healthy and talented electricians to attend all the above mentioned electrical works (as per qualification stated in the BOQ) should be made available to undertake the electrical maintenance work. A copy of their certificates with originals may be produced in this office for verification.
- h. The contractor shall provide tools necessary for the work and no work should be left un- attended for want of tools.
- i. The contractor has the responsibility to provide all safety garments, equipment's, tools etc.to his staff or the persons dealing with work.
- j. The Contractor shall ensure that all fittings are working properly and all items required for replacement will be provided by the office as and when required. For items needed for replacement, the Contractor shall furnish the requirement to the Office of IIT Dharwad for making necessary provisions. The item replaced shall be returned to the stores (Issue) section of the Institute.
- k. The contractor shall ensure sufficient stock of diesel to run the Generator set (3 No's). The requirements of the diesel should be intimated to the office sufficiently in advance for taking procurement action. Necessary log book needs to be maintained by the contractor.
- l. Maintaining a register for all activities detailing date, time, item description, quantity complaints diagnosis, time of completion of work etc. This register will be daily shown to the authorized staff of IIT Dharwad and countersigned to acknowledge the activities attended to reflect daily progress.
- n. The contractor shall ensure that all energy efficient appliances, spare parts should be replaced as per the standards of approved make/ brand by PWD, KPTCL or HESCOM such as BIS, BEE, ISI, IEEE, ISO etc.
- o. The Contractor shall ensure the type of works to be taken place in IIT Dharwad campus on visiting the Site and have to Prepare the quotation based on site inspection only.
- p. The work of the Contractor will be supervised by the authorized

representative/Engineer of IIT Dharwad.

- q. Instruments: Earth tester, Tong tester, Megger for insulation resistance measurements, Lux meter, Temperature gun (for remote recording) to be kept at site office all time.

35. Special terms and conditions:

- a. The maintenance contract consists of operation and maintenance of compact RMU; HT & LT control panels and its associated AMF panels, underground cables, raising mains. D.G. sets, external and internal electrification, Telephone connections of R.O and staff Quarters as detailed in schedule accompanying the notification and tender documents.
- b. The power factor of the installation has to be maintained / monitored daily and monthly as per the statutory requirements of KPTCL / HESCOM.
- c. Due to negligence of operator if any, “the power factor” goes below 0.9 lag during the month, P.F. penalty will be imposed and recovered from the monthly maintenance bill (as per rate of Electricity Board.)
- d. Electrician has to maintain the earthing point/ stations of the electrical power system, adding water & salt and keeping the station in good conductive //wet, at least once in a month regularly and keep that the earthing system is in good condition.
- e. The operating / Supervisor staff shall possess the Knowledge of firefighting and first aid.
- f. The operating/supervisor personnel shall have the basic Knowledge and technical skill of the DG set / HT equipment and shall be capable of independently carrying out the emergency repair works on generator/ AMF panel.
- g. All the accessories, equipment comprising of batteries, battery chargers. Control panel, switch boards shall be operated and maintained by the agency.
- h. The contractor / operator / supervisory personnel shall have a clear working Knowledge of the various electrical circuits and shall not meddle / alter the electrical circuits without the permission of the Engineer in charge.

36. Evaluation Criteria:

The L-1 will be decided on the Grand Total Rate quoted for the work. All levies/taxes (i.e. GST etc.) must be clearly mentioned in the row provided for the purpose (as per format of Financial bid).

However, the decision of the Competent authority will be final and binding in awarding the order. In case of any clarification required, the same can be clarified from IIT Dharwad before submission of the bids.

The bidders must also note that the quantities may vary (10% more or less). Additional items may also crop up other than the listed items as per site conditions.

Bidder Information

1.	Name of the Bidder	
2.	Address of the Bidder	
3.	PAN No.	
4.	GSTN No.	
5.	State of GST Registration	
6.	E-mail	
7.	Contact Person's Name & Designation	
8.	Mobile No.	

Signature of the Bidder with date and seal

INDIAN INSTITUTE OF TECHNOLOGY DHARWAD
Near High Court, PB Road, Dharwad-580011
TEL NO: +91 836 2212 839

Tender no.: IITDH/MMD/IPS/2020-21/105

SCHEDULE OF WORK / BOQ / PRICE BID
(To be quoted on the letter head of the bidder)

Bill of Quantity (to be quoted only in INR)					
Sl. No.	Particulars/Description	Unit	Qty.	Unit Rate	Amount
1	Open Conduit System Supplying heavy gauge PVC conduit pipediamm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall / stone structure or rawl plugs in case of brick walls and cement plastering the damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.				
	19/20mm dia 2mm thick	Mtr	400		
	25mm dia 2mm thick	Mtr	700		
	32mm dia 2.5mm thick	Mtr	50		
	40mm dia. 2.5mm thick	Mtr	75		
2	Extra for Groove cutting in brick wall/CC floor to the suitable depth for concealing of Conduit/GI pipe and plastering, finishing upto wall surface complete.				
	upto 50mm conduit in brick wall	Mtr	25		
	upto 50mm conduit CC floor	Mtr	25		
3	Supplying and fixing of PVC casing and capping on the wall or ceiling using necessary materials like bends, screws at an interval of 300mm etc. as required.				
	20mm	Mtr	450		
	25mm	Mtr	800		
	32mm	Mtr	30		
	38mm	Mtr	30		
	50mm	Mtr	30		
4	Supplying PVC/GI flexible conduit pipe...mm dia fixing on surface over inverted tapered wooden plugs or phill plugs or rawl plugs and clamped using heavy gauge saddles at an interval of 300mm using NF screws and on either end of the pipe terminated completely				
	20mm	Mtr	150		
	25mm	Mtr	150		
	32mm	Mtr	20		
	38mm	Mtr	20		
	50mm	Mtr	20		
5	Point wiring using Copper wire without switch. Supplying and wiring adopting loop system in existing PVC Conduit / casing capping using 1100V grade, COPPER conductor flexible multistrand FRLS PVC insulated, 2X1.5 Sq.mm Cable confirming to the GTP without switch, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block complete for each outlet. GROUP A				
	Short point upto 3Mtr from tapping point to out let via switch box	No's	20		
	Medium point above 3Mtr upto 6Mtr from tapping point to out let via switch box	No's	30		
	Long point above 6Mtr upto 10Mtr from tapping point to out let via switch box	No's	30		
6	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multi strand Copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & confirming to GTP of				

	GROUP -A.				
	1.5 sqmm	Mtr	1200		
	2.5sqmm	Mtr	1200		
	4 Sqmm	Mtr	1300		
	6 Sqmm	Mtr	100		
	10 sqmm	Mtr	150		
	16 sqmm	Mtr	150		
7	Wiring for lighting/power circuit using one of PVC insulated 1100V grade, stranded Aluminium wire single core in open or concealed system of wiring.				
	10 sqmm	Mtr	100		
8	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990 & confirming to GTP of GROUP-A				
	3C X 1.5Sq.mm	Mtr	100		
	3C X 2.5Sq.mm	Mtr	100		
	3C X 4.0Sq.mm	Mtr	100		
9	Supplying and fixing surface/flush mounting unbreakable PVC modular box suitable for mounting modular switch plates with due groove cutting in Brick/C.C wall, including necessary rawal plugs, Machine/NF screws etc., complete.				
	1-3Way	No's	50		
	4-5Way	No's	50		
	6-Way	No's	100		
	8Way	No's	100		
	10-12Way	No's	200		
10	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required No's. of machine screws, bolts nuts etc., complete on the existing metal/PVC box.				
	1 to 3 Module	No's	50		
	6 Module	No's	150		
	8 Module	No's	150		
	12 Module	No's	150		
11	Supplying and fixing of modular switch/ Socket/stepped electronic fan regulator/ dimmer/telephone socket etc. on existing modular switch plate as per IS 3854 and IS 1293 GROUP A				
	6Amps one way.	No's	200		
	6 Amps Two Way	No's	20		
	6Amps 3way socket.	No's	200		
	Stepped Fan Regulator.	No's	75		
	16Amps one way switch	No's	200		
	6amps Bell push	No's	10		
	32Amps DP Switch	No's	150		
	6/16Amps universal socket	No's	200		
12	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.				
	5-32Amps SP	No's	40		

	40-Amps SP	No's	25		
	50-63 Amps SP	No's	25		
	5-32 Amps DP	No's	10		
	40-63Amps DP	No's	10		
	50-63 Amps DP	No's	10		
	5-32Amps TPN	No's	10		
	40-63Amps TPN	No's	10		
	50-63Amps TPN	No's	10		
13	Supplying, fixing and wiring Earth Leakage Miniature Circuit Breaker [ELMCB] 240/450V up to 300mA sensitivity on existing wood/panel board.				
	16-25 Amps 2 pole	No's	4		
	32-40 Amps 2 pole	No's	4		
	32-40 Amps 4 pole	No's	2		
	63 Amps 4 pole	No's	2		
14	Supplying and fixing regular MCB distribution boards on wall / wood board / flush mounting using required clamps, bolts, nuts etc., with provision for fixing suitable type capacity MCB's single phase / 3 phase / single door with powder coated painting. Made out of 14 SWG MS enclosure III - Double Door				
	4Way TP &N	No's	1		
	6Way TP &N	No's	1		
	8Way TP &N	No's	1		
	12Way TP &N	No's	1		
15	Supplying capacitor type ceiling fan complete with down rod blades, shackle, canopies etc., for operation on 230 volts, 50 cycles. Single phase AC supply conforming to ISS-374-1979 and with double ball bearing system. 48" Sweep (1200mm)				
	Regular model	No's	20		
	Supplying And Fixing "S" Hook made out of 14mm dia M.S.Rod.	No's	20		
	Supplying And Fixing M.S. Rafter Clamp Set made out of M.S. Flat & 14mm M.S. rod.	No's	20		
	Extra length of GI pipe of class B 19mm dia for down rod.	Mtr	10		
16	Supplying of 1440rpm heavy duty exhaust fan with bracket blades suitable to operate on 230V 50Hz, AC Supply complete.				
	12" Sweep (300mm)	No's	10		
	15" Sweep (450mm)	No's	5		
17	LED Indoor Supplying of --' feet - LED PVC Square Batten ..W with high quality diffuser with Life of 25000 burning hours & 70% lumen maintenance with CRI > 80. Power Input: 220-240V @ 50Hz & Power factor >0.9 along with CE approved drivers. 5 years Warranty against any manufacturing defect working under standard electrical condition				
	LED light fitting 4' - 20 watts	No's	250		
18	Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires.	No's	10		
19	Fixing charges of post top/ Gate/ Garden fitting /LED on the existing CI / GI or any other pipe using required size of reducer, wiring using suitable wires.	No's	10		
20	Fixing all types and all capacities of fluorescent / false ceiling / spot light / CFL / LED fittings indoor on the wall / ceiling / rafters / girders using 23/0.0076" twin twisted PVC insulated wires, required No's of round blocks and clamps.				
	On wall / ceiling / Rafter / Girders	No's	250		
	Using necessary length of G.I. chain	No's	10		

21	Fixing a ceiling / Wall mounting fan of all capacities and all types to the existing 'S' hook with fan regulator to the existing board together with supplying and fixing 5 amps. ceiling rose, necessary length of 23 / 0.0076 inch PVC insulated twin twisted copper wire and wiring.	No's	20		
22	Fixing a ceiling / wall mounting fan of all capacities and all types, with necessary clamps and 'S' hook made out of 15mm dia MS rod, with 5 amps. ceiling rose of approved quality with necessary length of 23 / 0.0076 inch PVC insulated twin twisted wire of approved quality, mounted on a suitable size wooden board and wired.	No's	20		
23	Fixing one exhaust fan after making a suitable notch in the wall and finishing with cement mortar and colouring to match the existing wall or brackets, with bolts and nuts and a 5 amps, ceiling rose with sufficient length of 23 / 0.0076 inch PVC insulated twin core wire of approved make with wire mesh and wooden frame.	No's	10		
24	Fixing one exhaust fan in the notch already left in the wall with bolts and nuts and 5 amps. ceiling rose with sufficient length of 23 / 0.0076 inch PVC insulated twin core wire.	No's	10		
25	Erection charges for fixing a ...liters capacity wall mounting electric geysers using bolts, flat at one end nut and washers at the other end for through bolts and nuts and washers with 150x450x600mm back plate and wiring complete with 15A 3 pin top.				
	Up to 30 Litres	No's	20		
26	Erection of single phase preventer / ammeters / including fixing selector switch / voltmeter / current operated earth leakage circuit breakers / voltage operated circuit breaker / above 100A fuse channel set (3 No's) HRC fuses above 100A (3 No's.) / Digital ammeter/digital volt meter/set of 3 indicating lamps /MCB / Relays /A-V selector switches including wiring using suitable capacity wires, bolts, nuts, screws.	No's	5		
27	Fixing a shunt capacitor of ... KVAR capacity with necessary clamps, bolts, and nuts on existing wooden or metal board including banking of more than one capacitor.				
	Up to 5 KVAR	No's	1		
	6 to 10 KVAR	No's	1		
	11 to 20 KVAR	No's	1		
28	Supplying and drawing Flexible Multicore Cable manufactured with electrolytic grade flexible copper with low conductor conforming to table 3 class 5 of IS:8130-1984 and (Virgin) PVC insulation and sheathed suitable for working voltage upto 1100Volts as per IS-694:1990 & conforming to GTP of GROUP-A.				
	2C X 1.5Sq.mm	Mtr	30		
	3C X 1.5Sq.mm	Mtr	30		
	4C X 1.5Sq.mm	Mtr	30		
	3C X 2.5Sq.mm	Mtr	30		
	4C X 2.5Sq.mm	Mtr	30		
29	Supplying and fixing of metal clad industrial plugs and sockets. SOCKET 3pole+earth 440V				
	20 Amps	No's	3		
	30 Amps	No's	3		
30	Supplying and fixing/replacing of 6/16/32Amps electrical accessories on existing switch board. GROUP A				
	6Amps SP Switch	No's	50		
	6Amps 2way Switch	No's	10		
	6Amps 3 way 5 pin Socket	No's	80		
	6Amps 3 pin Top	No's	100		
	6Amps Bakelite ceiling rose	No's	100		
	6 Amps lamp holder	No's	50		
	6 Amps bell push	No's	5		
	6 Amps bell buzzer	No's	5		

	16 Amps SP switch	No's	50		
	16 Amps 3 way 5 pin socket	No's	100		
	16 Amps 3 pin top	No's	100		
	32 Amps Bakelite DP	No's	50		
	16/6 Amps combined plug and socket with control switch	No's	50		
	Electronic stepped regulator.	No's	25		
31	Supplying and fixing PBBC/Bakelite straight or slant batten holder and wiring with 60w/230 volts lamps.	No's	50		
32	Accessories-Condenser for ceiling fan/MV/SV/MH and other luminaires				
	Upto 4 mfd	No's	30		
	10mfd	No's	30		
33	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947.				
	25Amps	No's	3		
	40Amps	No's	3		
	60-70Amps	No's	2		
34	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Microprocessor release and Earth Fault as per IS-13947. (Icu = Ics) FOUR POLE				
	100Amps 25kA.	No's	2		
	125-160Amps 25kA.	No's	2		
35	Supplying, fixing and wiring earth leakage relay with core balanced current transformer suitable for single phase 50 Hz AC with latest microcontroller based, digital readout of percentage leakage current, programmable delay/auto/manual reset facility suitable to mount on DIN rail/ flush mounting on panel board.	No's	1		
36	Supplying, fixing and wiring 0 to 600Volts 96x96mm AC Voltmeter on existing panel/wood board.	No's	1		
37	Supplying, fixing and wiring 0 to 30volts Direct Reading DC Voltmeter/Ammeter.	No's	1		
38	Supplying, fixing and wiring 0 to 30amps Direct Reading AC analog type Ammeter	No's	1		
39	Supplying, fixing and wiring rotary selector switch suitable for Ammeter.	No's	1		
40	Supplying, fixing and wiring rotary selector switch suitable for Voltmeter.	No's	1		
41	Supplying, fixing and wiring 3 Phase Digital Ammeter /Voltmeter.	No's	1		
42	Supplying, fixing and wiring electronic 5 to 20Amps single phase Class-1 Accuracy with Temper Proof Energy Meter.	No's	1		
43	Supplying and fixing digital frequency meter with latest micro controller technology, ultra bright 4 digit LED display, from 30-500V AC and optional or relay output for high/low frequency and wiring complete.	No's	1		
44	Supplying, fixing and wiring 50/5 to 400/5Amps 5VA burden Current Transformer. Class 0.5 accuracy with Tape Wound.	No's	3		
45	Supplying, fixing and wiring Electronic Trivector Meter (ETV) 5 to 32/63 Amps three phase 4 wire whole current class-1 Accuracy Energy Meter.	No's	1		
46	L.T. U.G. CABLES				
	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia	No's	5		

47	Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required.				
	25x3mm GI strip	Mtr	75		
	25x3mm Copper strip	Mtr	45		
	25x6mm Copper strip	Mtr	25		
48	Supplying of 1.1 KV LT UG cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A.				
	2 core 10 sqmm	Mtr	100		
	4 core 10 sqmm	Mtr	100		
	2 core 16 sqmm	Mtr	100		
	4 core 16 sqmm	Mtr	100		
49	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required. In existing trench/duct.				
	6 sqmm to 16 sqmm	Mtr	500		
50	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7)				
	In soil (ordinary)	Mtr	200		
	In soil (hard)	Mtr	100		
	Cutting road surface	Mtr	25		
51	Supply and laying double walled corrugated (DWC) HDPE Pipe including all necessary connecting Sockets/Couplings/Tees/Bends/End-caps of same materials in existing trench as per IS 14930 part -II suitable for drawing underground cables.				
	110mm OD / 94mm ID	Mtr	100		
	63mm OD / 50mm ID	Mtr	100		
52	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.				
	10 sqmm	No's	24		
	16 sqmm	No's	24		
	25 sqmm Long Barrel	No's	24		
	35 sqmm Long Barrel	No's	24		
	50 sqmm Long Barrel	No's	24		
	70 sqmm Long Barrel	No's	16		
	95 sqmm Long Barrel	No's	16		
53	Supplying and running GI/Copper conductor for grounding and (along with other wires in conduit system of wiring) using necessary suitable size clamps, nails, guttas/spacers etc. GI Wire				
	8 SWG GI	Mtr	150		
	8 SWG Copper wire.	Mtr	100		
54	Chemical earthing for grounding. Conduits, IC cutouts & other equipment backfill compound which is non-corrosive, thermally conductive, potential to permissible limits, superior Fault conduction capacity, nontoxic, weather resistance & capable of achieving ohmic value less than one ohm				
	Using 10ft. Copper bonded rod with backfill compound	No's	3		
55	Installation charges for split type air conditioner with allied works for one indoor and one outdoor unit is to be mounted on suitable Angle Iron support up to 3.0 ton split/cassette type A/C.	No's	20		

56	Supplying and installation of insulated refrigerant copper tubing of 5/8" and 3/8" with polythene foam insulation 3 core 80 stand copper wiring between indoor and outdoor unit. Leak testing OIL and gas charging for additional piping length of tube.				
	a)For Split A.C.	Mtr	30		
57	Supply and fixing of condensing coil for Split Air Conditioners.				
	1 ton capacity	No's	3		
	1.5 ton capacity	No's	5		
58	Supplying and fixing capacitor's (of approved make) for window /split air conditioners.				
	25 to 45mfd running capacitor.	No's	10		
	80 to 200mfd starting capacitor.	No's	10		
59	Supplying & fixing relay for over load protection for window and split air conditioners.	No's	5		
60	Supplying & filling refrigerant (F-22/F/12) for air conditioning equipment's. Which includes the labour & Nitrogen gas for pressure and leak testing.	Per Kg	30		
NETWORKING & TELECOMMUNICATIONS					
61	Laying UTP-CAT 6E LAN cable.	Mtr	1000		
	Fixing of I/O socket with back box				
	Single I/o	Each	50		
62	Rewinding a ... mm ceiling fan/after using necessary gauge annealed and insulated copper wire with necessary insulating, separators vibration arresting shellac, etc including replacement of bearings if any transportation to and from the spot to workshop inclusive of releasing the refixing.				
	1200MM	No's	50		
63	Releasing the existing fan dismantling testing painting after removing the existing painting by scraping and cleaning (spray method) not less than 2 coats of approved make enamel paint to a ceiling fan and wiring and fixing of the same.	No's	50		
64	Supplying and replacing ceiling fan regulator 900mm to 1500mm.	No's	5		
65	Releasing the existing fan checking, testing and installation at the same place.	No's	50		
66	Releasing the existing fan checking, testing and installation at the New place.	No's	30		
67	Releasing the existing fan and refixing the same in the new place with clamps without 'S' hook complete.	No's	30		
68	Supplying and fixing/replacement of heating element for Geyser/Boiler.				
	2KW Capacity	No's	30		
	3KW Capacity	No's	10		
69	Supplying and fixing regular MCB distribution boards on wall / wood board / flush mounting using required clamps, bolts, nuts etc., with provision for fixing suitable capacity MCB's single phase / 3 phase / single door with powder coated painting. Made out of 14 SWG MS enclosure.				
	II - Double Door				
	4Way SP &N	Each	1		
	6Way SP &N	Each	1		
	8Way SP &N	Each	1		
	12Way SP &N	Each	1		
70	Supplying and fixing regular MCCB distribution Panel confirming to IS 8828, on wall / wood board / flush mounting using required clamps, bolts, nuts, etc., with provision for fixing of suitable type capacity MCCB's as an incomer for 3 phase Double door with necessary bus bar completely wired to use on 440Volts 3phase 4 wire powder coated painting etc., complete with a provision for fixing of single/ three phase suitable capacity MCCB/MCB's as outgoing confirming to IS8828.				

	4Way	Nos	1		
	8Way	Nos	1		
	12Way	Nos	1		
71	Supply and fixing of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of antiglare clear diffuser with Injection moulded polycarbonate material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, maximum light intensity should be between 60 degrees to 70 degrees. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture withW System Power consumption. LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have in house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source. Make: Crompton, Bajaj, Philips				
	LED Streetlight 70watts	No's	6		
72	Supplying and Fixing.....mm dia class A GI pipe bracket up to 2.7 meters long terminated with a reducing collar of 40x25mm to which extra pipe of 175mm length is fixed for fixing MV/SV/MH/FTL street light fitting of all capacities on rail/RCC/wall/tubular pole, using suitable clamps, bolts ,nuts and wiring using suitable capacity wires.				
	Using 40mm dia G.I.pipe	No's	2		
73	Electrician (8 hours duty)	Man Days	754		
74	Helper (8 hours)	Man Days	754		
75	A.C Technician	Man Days	48		
76	Total				
77	GST/Taxes as applicable				
78	Grand Total				

Declaration: I/We do hereby accept all the terms and conditions laid down in the tender document for the above said work/supply. I/We also agree to the condition that the right to suspend the tender process or part of the process, to accept or reject any or all the tenders at any stage of the process and/or to modify the process or any part thereof at any time without assigning any reasons thereto is reserved by the Competent authority of the Institute without any obligation or liability whatsoever.

Signature of the Bidder with date and seal

LIST OF APPROVED MAKE/MODEL

- 1) All material shall confirm to relevant technical specification. The material shall be further subjected to tests in the recognized laboratories at the sole discretion of the Engineer-in-Charge and shall be at contractor's cost.
- 2) Material bearing appropriate IS marking and having valid licence for the last 3 years shall be given preference while selecting for the work.
- 3) In the case of material which are not widely available with IS marking in the market but confirm to the technical specification mentioned in the tender documents, the same shall be procured from any of the manufacturer listed below after prior approval of the EIC.
- 4) EIC can approve any other brand subject to verification of the adherence to the relevant technical specification.

SI. No.	MATERIALS	MAKE /BRAND
1	Rigid FR PVC conduit Pipe and accessories	Nihir, precision, Polycab or equivalent
2	Copper wire /conductor	Finolex, Polycab, RR cable, Havells, or Equivalent
3	Modular type	Mk , Legrand, anchor, Havells or equivalent
4	MCB / ELCB/ RCCB	Legrand, ABB, Hager, Scheindler L&T, Indo-Asian or equivalent
5	MCCB/ ACB	Legrand, ABB, Hager, Scheindler L&T, Indo-Asian or equivalent
6	Lighting fixtures & Lamps	Philips, Crompton, Wipro, Havells or equivalent
7	Ceiling fans & exhaust fan	Crompton, orient, Havells, Bajaj, Usha or Equivalent
8	Geyser	Racold, Havells, Bajaj, Usha, AO smith or Equivalent
9	PVC tape	Steel grip, anchor , Jonson or equivalent
10	Call bell	Anchor, Orpat, max or equivalent
11	Distribution board	Indo-Asian, Havells, Siemens, L&T or equivalent
12	UG 1.1kv LT cables	Finolex, Polycab, RR cable, Havells, or Equivalent
13	Air conditioners	Voltas, Daikin, Blue Star, LG or Equivalent
14	PVC casing capping and accessories	Modi, Polycab, classic
15	Motor pump set	Crompton, Kirloskar, KSB or equivalent
16	Timers	L&T, Siemens, ABB, culter hammer or equivalent
17	Selector switch	L&T, Hpl, Cummins, Havells or equivalent
18	Cable lugs	Dowell's, Johnson, hex or equivalent
19	Cable jointing kit	Raychem, Denson, m-seal or equivalent
20	Indicating led lamp	Siemens, ABB, L&T, Wipro or equivalent
21	Protection relay	L&T, Siemens, ABB, culter hammer or equivalent