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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 CARRYING OUT ELECTRICAL WORK IN
MANUFACTURING PROCESSES LABORATORY AT
WALMI CAMPUS IN IIT DHARWAD**

Tender no.: IITDH/MMD/IPS/2019-20/60

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

Tender no.: IITDH/MMD/IPS/2019-20/60

NOTICE INVITING TENDER

Name of the work:	Tender for carrying out electrical work in manufacturing processes laboratory at WALMI campus in IIT Dharwad	
Type of Tender:	Open Tender Enquiry	
Estimate Value:	Rs.7.65 lakhs approx.	
Cost of tender documents	Free of cost	
EMD:	Rs.15,000/- (DD/PO in favour of The Registrar, IIT Dharwad) to be attached with the tender as separate sealed envelope.	
Issue of tender:	11 th December, 2019	
Last date for submission of tender:	Date: 03 rd January 2020	
	Time: 10:00 AM	
<u>Two Bid System:</u> - 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. Separate technical bid and commercial bid envelopes should be clearly marked as "Envelope No. 1 - Technical Bid" and "Envelope No. 2 - Financial Bid". 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. 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. Contract/ Work Order will be awarded to the lowest bidder (L1) identified.		
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: 03 rd January 2020	
	Time: 10:30 AM	
Schedule of Opening of Commercial Bids	Schedule for opening of Commercial 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. Consequent to commercial bid opening, only the lowest bidder will be communicated further.	
Contacting Authority:	The Assistant Registrar (MMD) Near High Court, P B Road Dharwad-580011 E-mail: armm@iitdh.ac.in Telephone: 91-836-2212-839	

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1. GENERAL CONDITIONS OF CONTRACT

Sealed tenders are hereby invited on behalf of the Indian Institute of Technology, (IIT) Dharwad, for carrying out electrical work in manufacturing processes laboratory at WALMI campus in IIT Dharwad.

Time for completion: 45 Days from issue of Work order

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 II or above and must be in the business of Electrical works since 3 years or more (i.e. the firm must be in the business since December 2016 or earlier).
- 2.2 The Bidder must have carried out at least one similar electrical work of minimum 4.00 lakh in reputed organizations/IITs/IIMs/Govt. offices/PSUs/Central Universities etc. during a period of last 3 years (i.e. must have successfully completed the work during Dec 2016 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/Manufacturer 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:

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

4. Tenders are invited under Open Tender Enquiry and two bid system for carrying out electrical work in manufacturing processes laboratory at WALMI campus in 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 carrying out electrical work in manufacturing processes laboratory at WALMI campus in IIT Dharwad'. All the pages of this tender document along with necessary Appendices (as applicable) duly signed and stamped, will form the technical bid.

The bidder must submit the following documents/information within the Technical Bid (all 7 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 3 years.
- d) Copy of at-least one work completion certificate (along with work order) of similar electrical work of minimum 4.00 lakh in reputed organizations/IITs/IIMs/Govt. offices/PSUs/Central Universities etc. during a period of last 3 years (i.e. must have successfully completed the work during Dec 2016 till date). Completion certificates etc. to this effect are required to be enclosed.
- 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.
- g) Copy of Income tax returns for last three consecutive financial years (period ending 31.03.2019).

5. 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 carrying out electrical work in manufacturing processes laboratory at WALMI campus in IIT Dharwad'.

6. The Technical bid and the Price bid shall be sealed in one envelope super scribing 'Tender for carrying out electrical work in manufacturing processes laboratory at WALMI campus in IIT Dharwad'.

7. 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.

8. 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.

9. 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.

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

11. 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.

12. 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.

13. The offer should be valid for 180 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.

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

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

16. The tenderer should submit the requisite interest free Earnest Money Deposit (EMD) by pay order or Demand Draft in favour of the **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.

17. The contractor whose tender is accepted will be required to furnish security deposit for the due fulfillment of his contract. Security deposit shall be 5% (Five percent) of the amount of work order for DLP (Defect Liability Period) of 06 months (Six months) from the date of commissioning / handing over of the work. **The Earnest money deposit paid at the time of tender, will be released after payment of final bill.**

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. Defect Liability period will be 06 months from the date handing over the finished work for IIT beneficial use.

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. Completion period: 45 days from issue of work order.

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

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. 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.

28. 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.

29. 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.

30. 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.

31. 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.

32. 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.

33. 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 commercial 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.	

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

<u>Bill of Quantity (to be quoted only in INR)</u>					
Sl. No.	Particulars/Description	Unit	Qty.	Unit Rate	Amount
1	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.				
	25mm	Mtr	60		
	20mm	Mtr	20		
2	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	250		
	25mm dia 2mm thick	Mtr	120		
3	Point wiring using Copper wire with switch. Supplying and wiring adopting loop system in existing PVC Conduit / casing capping using 1100V grade, COPPER conductor flexible multistrand FRLS PVC insulated, 2 X1. 5Sq.mm Cable confirming to the GTP, with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet / gang box, 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	Point	20		
	Medium point above 3Mtr upto 6Mtr from tapping point to out let via switch	Point	20		
	Long point above 6Mtr upto 10Mtr from tapping point to out let via switch	Nos	40		
4	Supplying and fixing PBBC/Bakelite straight or slant batten holder and wiring with 60w/230 volts lamps.	Nos	50		
5	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand 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.				

	1.5sqmm	Mtr	1300		
	2.5sqmm	Mtr	1200		
	4 sqmm	Mtr	1400		
	6 sqmm	Mtr	500		
6	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 rawl plugs, Machine/NF screws etc., complete.				
	6-8Way	No's	12		
	10-12Way	No's	12		
	1-3Way	No's	25		
7	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required nos. of machine screws, bolts nuts etc., complete on the existing metal/PVC box.				
	1 to 3 Module	No's	25		
	6 Module	No's	12		
	12 Module	No's	12		
8	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	Nos	90		
	16Amps one way switch	No's	20		
	6Amps 3way socket.	No's	20		
	Stepped Fan Regulator.	No's	20		
	6/16Amps universal socket	No's	20		
9	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. 56" Sweep (1400mm)				
	Regular model	Nos	20		
10	Supplying wall mounting fan suitable to operate at single phase 230v A.C. supply.				
	400mm Sweep	Nos	6		
11	LED Indoor Supplying of 2' 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 fighting 4' - 28 watts	No's	40		
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	Nos	16		
	5-32 Amps DP	Each	3		
13	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.II - Double Door				
	12Way SP &N	Nos	2		
14	Supplying of 1440rpm heavy duty exhaust fan with bracket blades suitable to operate on 230V 50Hz, AC Supply complete.				
	12" Sweep (300mm)	Nos	10		
16	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.	Each	3		
	400Amps 50kA.	Nos	1		
17	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.				
	40-63Amps TPN	Nos	6		
	5-32Amps TPN	Nos	17		
18	Supplying and fixing of metal clad industrial plugs and sockets. PLUG 3pole+earth 440V				
	30 Amps	Nos	6		
19	Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required. GI strip				
	25x3mm	Mtr	45		
20	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.				
	3.5 core 185 sqmm	Mtr	40		
	3.5 core 50 sqmm	Mtr	120		
21	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	160		
22	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.				

	25 sqmm to 75 sqmm	Mtr	120		
	185sqmm to 240Sqmm	Mtr	40		
23	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	30		
24	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. Copper wire.				
	8 SWG	Mtr	60		
25	Chemical earthing for grounding. Conduits, IC cut-outs & other equipments 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 6ft. Copper bonded rod with backfill compound	1 kit	2		
27	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cut-outs 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	Nos	4		
28	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete.				
	16SWG	sq.cms	82684		
29	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron. and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint.				
	40x40x6mm	Mtr	8		
30	Supplying amps rated 3phase with neutral bus bar using required capacity electrolytic aluminium strips covered with heat shrinkable coloured PVC sleeve, mounted on phenolic/FRP/DMC insulator which are mounted on powder coated 40x6mm M.S. flat frame work in existing panel board. The bus bar shall have suitable holes for termination of incoming and outgoing cables as				

	per IS specification with necessary bolts, nuts and washers etc., complete.				
	400Amps 4x50x10mm Aluminium Strips	Mtr	12		
31	Earth Leakage Miniature Circuit Breaker ELR with CBCT	Each	1		
32	Supplying, fixing and wiring 0 to 1500amps CT operated AC analog type Ammeter without CT	Each	1		
33	Supplying, fixing and wiring rotary selector switch suitable for Ammeter.	Each	1		
34	Supplying, fixing and wiring rotary selector switch suitable for Voltmeter.	Each	1		
35	Supplying and fixing of LED type panel board indicating lamp with required colour suitable for 220v A.C. 50 Hz 12/24v D.C.	Each	3		
36	Supplying, fixing and wiring 1000/5A to 1600/5A 15VA Burden class 1 Current Transformer.	Each	3		
37	Supply of 2'x2' LED recessed luminaire with ...Watts system wattage. Housing shall be with pressure die cast aluminium alloy with corrosion proof resistant polyester power coated. Driver operates with voltage range from 100V to 270V 50/60 Hz with short circuit, overload & miss-wiring protection. Lumen Maintenance of 70% at 50000 Hrs. Injection moulded poly carbonate diffuser for better mechanical stability, light transmission & avoid pot hole effect. Junction temperature shall be < 70 degree Celsius. Driver is on constant current driver @ 0.06A with PF > 0.92 with line voltage @ 220-240V @ 50/60Hz, driver efficiency > 85% & THD<15%. LED Efficiency > 130 lm/W at 1W & Fixture Efficiency >75lm/w with CRI > 75 with injection moulded Polycarbonate lens with < 80mm depth. 5 years Warranty against any manufacturing defect working under standard electrical condition				
	LED modular down light 2'x2'-55 watts	Nos	6		
38	TOTAL				
39	GST/Taxes as applicable				
40	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/Manufacturer with date and seal