

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for Repair and Renovation at toilets, Changing of MS windows, Painting of Varandah, Staircase, Students room, Expansion Joints, Road upto JCB Hall and Plinth Protection in HJB Hall of Residence at IIT Kharagpur.



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR, WEST BENGAL

TENDER DOCUMENT FOR

Repair and Renovation at toilets, Changing of MS windows, Painting of Varandah, Staircase, Students room, Expansion Joints, Road upto JCB Hall and Plinth Protection in HJB Hall of Residence at IIT Kharagpur.

PART – I : TECHNICAL BID

NOTICE INVITING TENDER NO. : SE(C)-IIT-TEN-2017-18_13
DATED : 07.04.2017

APRIL 2017

Cost of Tender Document : Rs. 1000.00 (Non-Refundable)
Last Date & Time of Submission : 20.04.2017, upto 3:00 pm

योग: कर्मसु कौशलम्

CIVIL CONSTRUCTION & MAINTENANCE SECTION
IIT, KHARAGPUR,
WEST BENGAL

SUPERINTENDING ENGINEER (CIVIL)
IIT KHARAGPUR

Name of Bidder : M/S.....

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Issued on:

CCM Tender Sl. No. _____

Dated _____

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for Repair and Renovation at toilets, Changing of MS windows, Painting of Varandah, Staircase, Students room, Expansion Joints, Road upto JCB Hall and Plinth Protection in HJB Hall of Residence at IIT Kharagpur.

TABLE OF CONTENTS		
Sl. No.	SUBJECT	Page No.
01.	NOTICE INVITING TENDER	01
02.	INSTRUCTIONS TO THE BIDDER	02 - 04
03.	ADDITIONAL CONDITIONS OF CONTRACT	05 - 06
04.	SCOPE OF WORK & TECHNICAL SPECIFICATION	07 - 09



**INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR**

No. SE(C)-IIT-TEN-2017-18_13

Date: 07.04.2017

NOTICE INVITING TENDER

The Superintending Engineer (Civil), IIT Kharagpur, invites sealed Item Rate tenders under **Two part Bid System** containing Part-I (Technical Bid) & Part-II (Financial Bid) from the approved and eligible contractors of the Indian Institute of Technology, Kharagpur/CPWD/PWD/MES and other bonafide agencies meeting the minimum qualification criteria for the following work:

Name of work	Estimated Amount (Rs.)	Earnest Money Deposit (Rs.)	Time for Completion	Start Date & Time of Tender Document Download / Bid Submission	End Date & Time of Tender Document Download / Bid Submission	Date & Time of opening of Technical Bid
Repair and Renovation at toilets, Changing of MS windows, Painting of Varandah, Staircase, Students room, Expansion Joints, Road upto JCB Hall and Plinth Protection in HJB Hall of Residence at IIT Kharagpur.	29,69,405.00	59,400.00	03 (Three) Months	07.04.2017 03:30 PM	20.04.2017 upto 03:00 PM	20.04.2017 at 3:30 PM

Cost of Tender Paper Rs. 1000.00, NON REFUNDABLE (in the form of DD only) in favour of **IIT Kharagpur**, payable at **Kharagpur** (validity of DD should be at least 03 months) is to be submitted along with the tenders (within Technical Bid). Tender without 'Cost of Tender Document' will be summarily rejected.

The Earnest Money should be deposited along with the tenders (within Technical Bid) in the form of DD only in favour of IIT Kharagpur, payable at Kharagpur. Tender without 'Earnest Money Deposit' will be summarily rejected.

Brief Scope of Work

The work to be executed at the students Halls of Residence, according to a strict time schedule and front availability.

The work comprises of –

1. Civil Works (Major Component), approximately 91% of total work value
2. Electrical Works (Minor Component), approximately 9% of total work value

Eligibility Criteria

Contractors who fulfill the following requirements shall be considered as eligible bidder.

Agencies should have satisfactorily completed the similar works as mentioned below during the last 07 (Seven) years ending last day of the March, 2017:

- i) Three (03) similar works each costing not less than 40% of estimated cost, or
- ii) Two (02) similar works each costing not less than 60% of estimated cost, or
- iii) One(01) similar work costing not less than 80% of estimated cost, executed under

Central/State Government Department / Central/State Autonomous Body / Central/State Public Sector Undertaking.

Similar work shall mean: Construction / Repair & Renovation / Maintenance of Building.

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 applications for tenders.

Completion certificate issued by Competent Authority will only be considered as credential. If the Completion certificate issued by Competent Authority does not reflect the type of work, then Final bill / Schedule of Quantity of the qualifying works also to be attached along with the Completion certificates.

If the bidders has no experience for allied minor component, he must associate himself, with agencies eligible to bid for the minor component (Electrical works), individually in line with Eligibility Criteria mentioned above (i.e, 3 similar Electrical works each costing not less than 4% of estimated cost, or 2 similar Electrical works each costing not less than 5% of estimated cost, or 1 similar Electrical work costing not less than 7% of estimated cost). The contractor or the agency he associates with to carry out the electrical work shall have to produce valid license from the competent authority in his name. The validity of the license should remain for the whole tenure of the work. The same should be submitted along with the technical bid. The eligible bidders shall quote rates for all items of major component (Civil and Sanitary & Plumbing) as well as for all items of allied minor component (Electrical) of work.

The tender document (consisting of specifications, the schedule of quantities of various types of items to be executed, the set of terms and conditions of the contract and other documents / drawings, if any) can be downloaded from the **Central Public Procurement Portal** of Government of India <https://eprocure.gov.in/cppp/tendersearch> & **Institute's website** <http://www1.iitkgp.ac.in/topfiles/tenders.php>. *The institute shall not be responsible for any delay / difficulties / inaccessibility of downloading facility for any reason whatsoever. In case of any discrepancy between the tender documents downloaded from internet and the master copy available in this office, the letter shall prevail and will be binding on the tender(s). No claim on this account will be entertained.*

Tender should be submitted as per the prescribed format within the specified date and time at Office of Civil Construction & Maintenance Section, IIT Kharagpur, and failing to do so, the offer shall be summarily rejected. **Bid Validity period is 90 Days** from submission of bid. Bid will be opened at Civil Construction & Maintenance Section, IIT Kharagpur. **The Institute reserves the right to reject any tender without assigning any reason thereof.**

Superintending Engineer (Civil)
On behalf of Indian Institute of Technology
Kharagpur

Copy to:

- 1) Registrar,
- 2) Chairman (CC&M)
- 3) Vice Chairman (CC&M) Civil
- 4) Executive Engineer (Civil)
- 5) Engineer (Civil)
- 6) Asstt./Jr. Engineer (Civil)
- 7) Notice Board
- 8) Office file

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

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INSTRUCTIONS TO THE BIDDER

1. Attention of the tenderer is directed to the conditions of tender and general conditions of contract of IIT Kharagpur. Bidders who are not aware of the "General Conditions of Contract" of IIT Kharagpur are instructed to collect the same from Civil Construction and Maintenance Section, IIT Kharagpur and read the terms & conditions before submission of the tender.
2. The tenderer shall visit and inspect the site and obtain all information on his own responsibility and at own cost, which may be necessary for the purpose of quoting and submitting the tender. No excuse or ignorance as to site conditions and local information shall be accepted after awarding of the contract. All costs, charges & expenses that may be incurred in connection with the preparation of his tender shall be borne by him and the Institute accepts no liability whatsoever therefore. Failure by the tenderer to have done all the things, which in accordance with his condition he is deemed to have done shall not relieve the successful tenderer of the responsibility for satisfactory completion of the work as required. If there is any clarification required, the tenderer shall submit the queries in writing 03 (Three) days before the last date & time of submission of the tender, to the Civil Construction & Maintenance Section, IIT Kharagpur. Access to the site will be granted, if necessary, to the tendered by prior permission of the Engineer-in-charge.
3. The time for completion of work is **03 (Three) Months** & will be reckoned from the 7th day from the date of issue of Work Order or handing over of site, whichever is earlier. The work to be executed according to a strict time schedule and front availability.
4. EMD of requisite amount as mentioned in NIT/Corrigenda in favour of **IIT Kharagpur** in the form of **Demand Draft** only from any **Nationalized Bank** payable at **Kharagpur** should be enclosed within the **Technical Bid**. Validity of DD should be at least 90 days from date of publication of NIT. Any tender received without requisite Earnest Money in the form as mentioned above shall be summarily rejected and treated as cancelled. The Earnest Money received shall be refunded to the unsuccessful bidders without any interest upon executing the Contract Agreement by successful tenderer, subject to the provisions of Clause 5 of ITB. The Earnest Money Deposit (EMD) of successful tenderer shall be retained and converted as part of Security Deposit.
5. Earnest Money Deposit (EMD) will be forfeited in the following cases -
 - a. If the tenderer withdraws / modifies his tender during the period of Bid Validity.
 - b. If the tenderer does not accept the correction of arithmetical errors of his tender.
 - c. If the tenderer after award of work, does not start the work within the stipulated time period as per Letter of Acceptance / Work Order.
6. **Eligibility Criteria**

Contractors who fulfill the following requirements shall be considered as eligible bidder.

Agencies should have satisfactorily completed the similar works as mentioned below during the last 07 (Seven) years ending last day of the March, 2017 :

- i) Three (03) similar works each costing not less than 40% of estimated cost, or
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Similar work shall mean: Construction / Repair & Renovation / Maintenance of Building.

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 applications for tenders.

Completion certificate issued by Competent Authority will only be considered as credential. If the Completion certificate issued by Competent Authority does not reflect the type of work, then Final bill / Schedule of Quantity of the qualifying works also to be attached along with the Completion certificates.

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If the bidders has no experience for allied minor component, he must associate himself, with agencies eligible to bid for the minor component (Electrical works), individually in line with Eligibility Criteria mentioned above (i.e, 3 similar Electrical works each costing not less than 4% of estimated cost, or 2 similar Electrical works each costing not less than 5% of estimated cost, or 1 similar Electrical work costing not less than 7% of estimated cost). The contractor or the agency he associates with to carry out the electrical work shall have to produce valid license from the competent authority in his name. The validity of the license should remain for the whole tenure of the work. The same should be submitted along with the technical bid. The eligible bidders shall quote rates for all items of major component (Civil) as well as for all items of allied minor component (Electrical) of work.

7. **Submission of Bid**

The bids shall be submitted in **Two Parts** in two separate sealed envelopes:

I. **Complete Technical Bid** will comprise of :

- i) EMD of requisite amount in the form of DD only in favour of IIT Kharagpur payable at Kharagpur. Bid without EMD would be summarily rejected.
- ii) Credential documents fulfilling the minimum eligibility criteria as per Clause 6 above, i.e., Experience Certificates for completion of similar type of job within last seven years.
- iii) Original Tender Document – Part-I: Technical Bid. (Stamped & Signed in all pages)
- iv) Statutory registration documents like Trade License, PAN, IT Return of last 3 years and other tax clearance Certificates, if any, etc.

II. **Complete Financial Bid** will comprise of :

- i) Duly filled-up **Form of Tender** as an acceptance to the terms and conditions set in the tender.
- ii) Duly filled-up **Schedule of Quantities**.

Both the envelopes should be duly marked on top with **NIT Number, Name of work and Technical Bid / Financial Bid** as the case may be and both the envelopes to be submitted in another sealed envelope duly marked on top with **NIT Number and Name of work**.

Cost of Tender Paper Rs. 1000.00, NON REFUNDABLE (in the form of DD only) in favour of IIT Kharagpur, payable at Kharagpur (validity of DD should be at least 03 months) to be submitted along with the tenders (within Technical Bid). Tender without 'Cost of Tender Document' will be treated as cancelled. Tenders must be delivered at the place and time as indicated in NIT / further corrigenda. Bids that are not in the above format will be rejected.

8. All Rates, Prices, Amounts and Sums quoted by the bidder shall be in Indian currency only. The language used throughout shall be English.
9. All Rates, Amounts & Sums shall have to be quoted in indelible ink and written both in figures and words. If the rate quoted in words does not tally with the rate quoted in figures then the rate which corresponds to the lesser amount shall be considered.
10. Any overwriting / correction / applying correction fluid shall be avoided and in case any correction is made the same must be initialized and stamped.
11. Tender must be submitted with the rates for all the items of work involved and any incomplete tender will not be considered. The items for which the rates are not quoted will be considered as '**Zero**' & the agency shall complete that item of work without any claim.
12. No alteration shall be made by the tenderer in the tender and no conditional tender will be entertained. Tender with split rate will not be considered.
13. The bid shall remain valid for a period of **90 days** from the date of opening of the bid. If before expiry of the validity period or issue of work order, whichever is earlier, the bidder amends / modifies / withdraws his bid, making unacceptable to the institute, then the Earnest Money Deposit shall be liable to forfeiture at the option of the Institute.
14. The Rates quoted by the tenderer should be inclusive of all taxes & duties, freight, cost for loading & unloading etc. and must hold good till the completion of work and shall not be subjected to escalation due to increase in local market rates of materials and labour. No claim on this account what so ever shall be entertained at any stage including the extended period, if any.

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15. The tenderer shall have to submit copies of valid Trade License, PAN, Income tax and other statutory tax clearance Certificates, if any, along with the tender. The original copies of these Certificates will have to be produced when demanded for verification.
16. Each page of the bid document shall have to be signed and stamped by the Bidder / Authorised Signatory before submission. The bidders have to submit the tender documents and correspondences accompanying the tender with proper sign and stamp on each page along with the bid. The person / officer signing the tender / bid should be delegated with an appropriate **Power of Attorney (duly endorsed by a Notary Public)** by the **Owner / Proprietor / Partner / CEO / MD / Director** of the company to sign such documents.
17. The Intending bidders will have to produce documentary evidence in original in support of their credentials before the competent authority whenever demanded for verification. If any information furnished by the bidder is found as false / fabricated then his bid will be rejected and treated as cancelled, even if the same is detected at any stage after signing of the contract and would lead to termination of the contract besides forfeiture of Earnest Money Deposit (EMD) and liabilities towards prosecution under appropriate law. In such cases the bidder / tenderer will be debarred from participation in future tendering process for next 03 (Three) years.
18. Should there be any doubt or obscurity as to the meaning of any of the tender documents or if any further information is required, the tenderer must address his enquiry in writing in duplicate to **Superintending Engineer**, Civil Construction & Maintenance Section, Indian Institute of Technology Kharagpur - 721302, West Bengal. Such enquiries must be submitted not later than **03 (Three)** working days before the last date fixed for submission of the tenders.
19. The sealed Bids shall be received by the Institute at Civil Construction and Maintenance Section not later than the time and date stipulated in the Notice Inviting Tender or Corrigenda otherwise. Tenders that are received after the date and time specified will not be considered.
20. The Technical Bid of tender will be opened on the specified date and time of opening at the Civil Construction & Maintenance Section, IIT Kharagpur in the presence of bidders / tenderers or their Authorised representatives (with proper authorization letter from Owner/Proprietor/Partner/CEO/MD/Director of the company mentioning Name, Address and designation of the person being authorised).
21. Date and time of opening of Price Bid will be informed to the Technically Qualified Bidders and will be opened at the Civil Construction & Maintenance Section, IIT Kharagpur in the presence of bidders / tenderers or their Authorised representatives (with proper authorization letter from Owner/Proprietor/Partner/CEO/MD/Director of the company mentioning Name, Address and designation of the person being authorised).
22. The Institute reserves the right to accept or reject any or all the offer including the lowest without assigning any reason. The Institute does not bind itself to accept the lowest offer.
23. The successful tenderer, shall deposit an amount equal to 5% of the tendered and accepted value of the work as performance guarantee in the form of Demand Draft of a Scheduled Bank in favour of IIT Kharagpur payable at Kharagpur. The time allowed for submission of the performance guarantee shall be 15 days of receiving "Letter of Acceptance" (LOA). This period can be further extended as the written request of the contractor by the Engineer-in-charge for a maximum period ranging from 1 to 15 days with a late fee @ 1.00% per day of Performance Guarantee Amount. If the bidder still fails to deposit the performance guarantee within the extended time period, i.e. within 16th day to 30th day from the issue of letter of acceptance (LOA), his bid will be rejected and treated as cancelled and the entire Earnest Money Deposit shall be forfeited. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the Contractor, without any interest.
24. Standard Institute payment procedure shall be followed. A sum @ 5% of the gross amount of the bill shall be deducted as Security Deposit from the bill of the contractor. However, Earnest Money shall be adjusted first in the Security Deposit and the rest amount to complete a sum of 5% of gross bill value will be deducted from the contractor's bill. The security deposit of the Contractor shall not be refunded before the expiry of defect liability period after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

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ADDITIONAL CONDITIONS OF CONTRACT

1. The quantities indicated are approximate and may vary at the time of execution. The Institute will exercise absolute discretion for operating all or some items of the schedule.
2. The scope of work includes **Civil works with allied Sanitary & Plumbing and Electrical works**. All works have to be executed in a systematic manner without hampering other jobs. *The bidders must associate himself, with agencies eligible to bid for the minor components (Electrical works) individually. The contractor or the agency he associates with to carry out the electrical work (minor component) shall have to produce valid electrical license from the competent authority in his name. The validity of the license should remain for the whole tenure of the work. The same should be submitted along with the technical bid. The eligible bidders shall quote rates for all items of major component (Civil works) as well as for all items of allied minor component of work (Electrical works).*
3. The total work would be done simultaneously in different floor.
4. Colour & type of flooring, painting etc. have to be approved by the concerned authority. Contractor has to arrange the adequate labour and materials accordingly to fulfill all the above conditions. Contractor has to remove all the debris from the site of execution and dispose them at suitable places shown by the Engineer or his authorised representative at site.
5. Cement used for the work should not be older than two months from the date of manufacture. The contractor should purchase the cement from authorised dealer and submit the test certificates/vouchers prior to execution of the work.
6. All temporary arrangements, staging, working platforms etc. is to be provided by the contractor at his own expense to the satisfaction of the Engineer-in-Charge. The Institute will not however, be liable to pay any compensation due to accident, injury to the contractor's work men or any account what-so-ever.
7. Steel to be supplied and used should be from approved manufacturers. Steel from manufacturers other than approved make / re-rolled steel will not be acceptable. The consumption of steel will be regulated as per bar bending schedule and drawing to the contractor and/or as directed by Engineer-in-charge. Payment of reinforcement rod, will be made as per actual use including overlaps, crank, bending etc., as needed at work site, if any, as per approved drawing. Quantity will be calculated using standard weight per running meter. No wastage on any account is payable. Test certificate of steel should be submitted by the contractor. The contractor must submit vouchers for the steel purchased to the Engineer. All reinforcement used should be free from loose mill scale, loose rust, paint and oil coating etc.
8. All concreting works instructed shall be Machine mixed and Machine vibrated and will have required levels of strength at the time of testing. Poorly executed concrete have to be demolished and repair will not be allowed.
9. The Institute will be at liberty to take samples during the course execution of work and get the same tested at Institute's laboratory to ascertain the quality conforming to relevant specification. The cost of sample and the charges for the testing will have to be borne by the contractor.
10. The contractor will have to maintain the work for **SIX** calendar months from the certified date of its completion.
11. The job is to be done as per WBPWD Building & Sanitary works specification for building / Civil works and WBPWD Roads specification for Road Works, as applicable and provisions made in relevant IS codes must be followed.
12. The bituminous road work shall be carried out by using bitumen of grade VG30 preferably from IOCL, wherever applicable.

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

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13. Roof treatment work / water proofing treatment work should be guaranteed by the contractor for 10 years after successful completion of work, wherever applicable.

14. For painting works-

- i. Volume of paint required is to be procured & stored at site during starting of work to avoid mismatch of shade. And Challan / Tax invoice of procured paint, certified by the Manufacturers, should be submitted to the department.
- ii. Sampling of paint should be done in presence of the manufacturers' representative and the quality of application to be certified by the manufacturer and the same to be submitted to the department.
- iii. Surface preparation and procedure of paint application as suggested by the paint manufacturers to be followed properly and Checklist of paint (pro-forma will be provided by EIC during execution) to be jointly signed by the contractor, paint manufacturer.
- iv. External Painting works to be guaranteed by the paint manufacturer for a period of 03 years for Normal Acrylic Emulsion, 05 years for 100% Acrylic Emulsion and 07 years for super protective Acrylic Emulsion Paint. The warranty should cover replacing of paint to the extent of defect including cost of labour for re-application of coating as may be necessary to set right the paint failure, at the contractor's own risk and cost.

Paint failure shall mean –

- a) flaking / peeling / cracking or chalking of paint film
- or, b) growth of micro-organism like algae/fungus on the painted surface
- or, c) fading of colour shade of painted surface

v. For a particular area, primer and paint to be used should of same make approved by IIT Kharagpur.

15. The contractor shall take adequate precaution and safety measures while executing the renovation of the existing room so as not to cause any damage to adjacent room, toilet, water main and electrical/networking lines/cables.

16. The areas under the scope of work should be barricaded or cordoned off by suitable means to avoid mishaps of any kind, without restricting or hampering, the movement of boarders / residents / users within the Halls of Residence. Proper warning signs should be displayed for the safety of the public whenever clearing works would be undertaken.

17. This safety provision should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot.

18. To ensure effective enforcement of the rules and regulation relating to safety precautions the arrangement made by the contractor shall be open to inspection by the Engineer –in-Charge of the department of their representative.

19. Suitable safety arrangement should be provided as per CPWD safety code.

20. The contractor should ensure that the work front and its adjoining areas should be kept clean of any debris / rubbish at his own risk and cost.

21. The Contractor would not be allowed to store cement / steel / tiles / electrical fittings / wood / plywood / or any such materials to be used for the work in common spaces within the Halls of Residence causing inconvenience to the users.

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

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SCOPE OF WORK & TECHNICAL SPECIFICATION

The scope of work includes - "Repair and Renovation at toilets, Changing of MS windows, Painting of Varandah, Staircase, Students room, Expansion Joints, Road upto JCB Hall and Plinth Protection in HJB Hall of Residence". The work to be executed according to a strict time schedule and front availability. The agency shall make himself ready to take up a job within short notice. The work comprises of Civil Works and Electrical works as -

1. Civil Works (Major Component), approximately 91% of total work value
2. Electrical Works (Minor Component), approximately 9% of total work value

APPROVED MAKE LIST OF MATERIALS TO BE USED WHEREVER APPLICABLE

SL. NO.	ITEM	SUGGESTED BRAND NAME OR SIMILAR (APPROVED BY THE AUTHORITY)
01.	Cement (PSC)	ACC / Ultratech / Ambuja / Lafarge
02.	Reinforcement Steel	TATA / SAIL / RINL
03.	Structural Steel	TATA / SAIL / RINL
04.	Ceramic Tiles	Johnson / Kajaria / Somany
05.	G.I. Pipes	TATA (Medium Duty)
06.	G.I. Fittings	HB / R
07.	Anodised Aluminum fittings	Allen / Metco
08.	P.V.C. Shutters	Sintex / Patton / Raunaq
09.	P.V.C. Pipes	Oriplast / Supreme / Dupal (Schedule-80)
10.	P.V.C. Cistern	Parryware Slimline
11.	P.V.C. Closet Seat Cover	Parryware Slimline
12.	P.V.C. Connector Pipe	Prayag
13.	P.V.C. Ball Cock	Prayag
14.	P.V.C. Bib Cock / Stop Cock/ Angular Stop Cock / Pillar Cock	Prayag
15.	P.V.C. Waste & Sanitary Fittings	Prayag
16.	I.P.W.C. / E.P.W.C. / Urinal	Parryware / Nycer / Hindware
17.	Basin / Sink	Parryware / Nycer / Hindware
18.	Gate Valve	Leader / Zoloto
19.	C.P. Bib Cock / Stop Cock/ Angular Stop Cock / Pillar Cock	Essco / Jaquar / Marc
20.	C.P. Shower & Shower Arm	Essco / Jaquar / Marc
21.	C. P. Waste Fittings	Essco / Jaquar / Marc
22.	C. P. Bottle Trap	Essco / Jaquar / Marc
23.	Cast Iron Pipe & Fittings	D. N. Sinha / AMC / ALC
24.	Gun Metal Wheel Valve	Zoloto / Alto / Leader
25.	Mirror	Modi Guard / Saint Govin
26.	Synthetic Enamel Paint & Primer	ICI Dulux / Asian / Berger/Nerolac
27.	Distemper & Primer	ICI Dulux / Asian / Berger/Nerolac
28.	APP Membrane	SIKA / PIDILITE / FOSROC
29.	Anti corrosive water proofing paint with aluminium finish	STP Super Silver Shield of Equivalent
30.	Extruded Aluminium Section for Doors, windows, Partitions etc.	HINDALCO/JINDAL or equivalent.

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INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR, WEST BENGAL

TENDER DOCUMENT FOR

Repair and Renovation at toilets, Changing of MS windows, Painting of Varandah, Staircase, Students room, Expansion Joints, Road upto JCB Hall and Plinth Protection in HJB Hall of Residence at IIT Kharagpur.

PART – II : FINANCIAL BID

NOTICE INVITING TENDER NO. : SE(C)-IIT-TEN-2017-18_13
DATED : 07.04.2017

APRIL 2017

Last Date & Time of Submission : 20.04.2017, upto 3:00 pm

योगः कर्मसु कौशलम्

CIVIL CONSTRUCTION & MAINTENANCE SECTION
IIT, KHARAGPUR,
WEST BENGAL

SUPERINTENDING ENGINEER (CIVIL)
IIT KHARAGPUR

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Dated _____

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

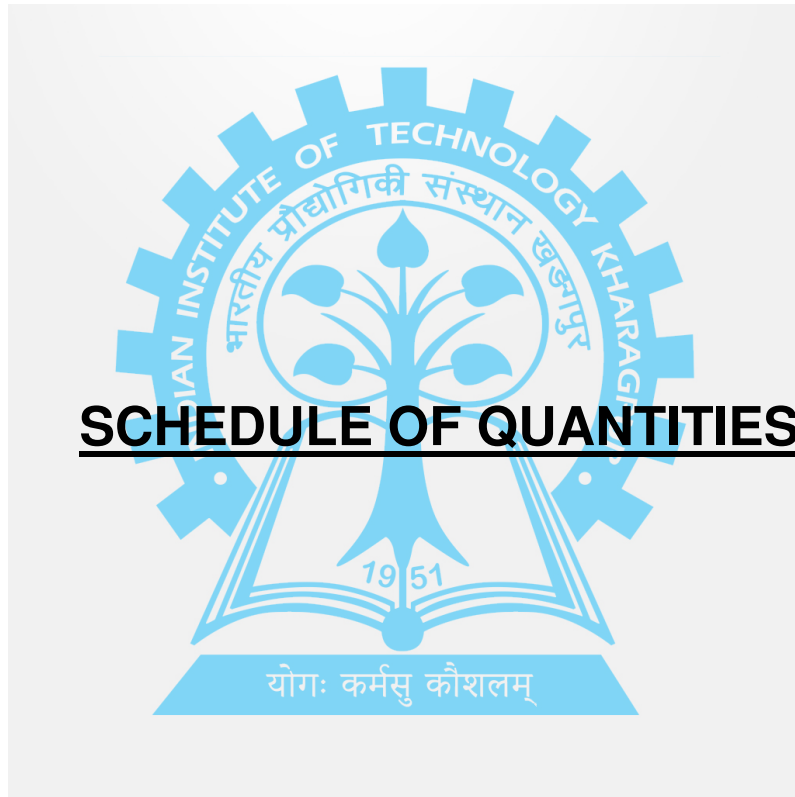
Tender Document for Repair and Renovation at toilets, Changing of MS windows, Painting of Varandah, Staircase, Students room, Expansion Joints, Road upto JCB Hall and Plinth Protection in HJB Hall of Residence at IIT Kharagpur.

TABLE OF CONTENTS		
Sec. No.	SUBJECT	Page No.
01	SCHEDULE OF QUANTITIES	01 – 23
02	FORM OF TENDER	24



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Tender Document for Repair and Renovation at toilets, Changing of MS windows, Painting of Varandah, Staircase, Students room, Expansion Joints, Road upto JCB Hall and Plinth Protection in HJB Hall of Residence at IIT Kharagpur.



**CIVIL CONSTRUCTION AND MAINTENANCE SECTION
IIT KHARAGPUR**

Name of Work : Repair and Renovation at toilets, Changing of MS windows, Painting of Varandah, Staircase, Students room, Expansion Joints, Road upto JCB Hall and Plinth Protection in HJB Hall of Residence at IIT Kharagpur

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
PART-A : CIVIL WORKS					
1	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work) - With carried earth arranged by the contractor within a radius exceeding 5 km. but not exceeding 10 km. including cost of carried earth.	Cum	15.00		
2	Stripping off worn out plaster and raking out joints of walls, celings etc. upto any height and in any floor including removing rubbish within a lead of 75m asdirected.	Sqm	465.00		
3	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course, scaffolding / staging where necessary at all floors and levels. - 20 mm thick plaster with 1:6 cement mortar,	Sqm	565.00		
4	Cement concrete with graded stone ballast (40 mm size excluding shuttering), In all floor, Pakur Variety], 1:3:6 proportion.	Cum	9.00		
5	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement,if any, in ground floor as per relevant IS codes. Pakur Variety	Cum	15.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
6	Hire and labour charges for shuttering with centering and necessary staging upto 4m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams and columns, lintels curved or straight including fitting, fixing and striking out after completion of works, at any floor and level as per decision & direction of Engineer-In-Charge. - Using 25 mm to 30 mm thick wooden shuttering	Sqm	10.00		
7	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars. Stirrups. Binders etc. initial straightening and removal of loose rust (if necessary). Cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge block annealed wire at every intersection. complete as per drawing and direction. For works in foundation, basement and all floor / Tor steel /Mild Steel.	Kg	50.00		
8	Brick work with 1st class bricks in cement mortar (1:6), in superstructure, at any floor and level	Cum	5.00		
9	100 mm. thick brick work with Fly Ash Bricks set in cement sand mortar (1:4) including raking out joints, curing, scaffolding etc. complete in all respect at all floors and levels	Sqm	35.00		
10	Artificial stone in floor, dado, staircase etc with cement concrete (1:2:4) with stone chips, laid in panels as directed with tapping made with ordinary or with cement (as necessary) and marble dust in proportion (1:2) including smooth finishing and rounding off corners including ranking out joints or roughening of concrete surface and application of cement slurry before flooring works using cement @ 1.75 kg/sq.m all complete including all materials and labour -35 mm thick with 3 mm. thick topping.	Sqm	70.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
11	Neat cement punning about 1.5mm thick in all,dado>window sill,floor etc. Cement consumption : 0.152 cu.m per 100 sq.m.	Sqm.	40.00		
12	Applying interior grade Acrylic Primer of approved quality and brand on plastered or concrete surface old or new surface to receive Distemper/ Acrylic emulsion paint including scraping and preparing the surface throughly, complete as per manufacturer's pecification and as per direction of the EIC at all floors and levels. One Coat Water based interior grade Acrylic Primer	Sqm	1180.00		
13	Acrylic Distemper to interior wall, ceiling (as per manufacturer's specification) including cleaning and smoothning of surface al all floors and levels. Two Coats	Sqm	10160.00		
14	Priming one coat on steel or other metal surface with synthetic all bound primer of approved quality including smoothening surfaces by sand papering etc. at all floors and levels.	Sqm	66.00		
15	Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface in necessary.				
	(a) On timber or plastered surface, With super glass (hi-gloss), Two coat (with any shade except white) .	Sqm	1750.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
	(b) On steel or other metal surface. With super glass (hi-gloss). Two coat (with any shade except white) .	Sqm	750.00		
16	Supplying best Indian sheet glass panes set in putty and fitted and fixed with nails and putty complete. (In all floors for internal wall & external wall (3 mm thick)	Sq.m.	9.00		
17	Supplying, fitting and fixing windows and ventilators with or without integrated grills conforming to IS 1038-1975 and manufactured from rolled steel sections conforming to IS 7452-1974 with non-friction projecting type, box type hinges, glazing clips, lugs locking bracket, handle plate etc, including hoisting in position, straightening if required, fixing lugs in cement concrete (1:2:4) with stone chips 20 mm down cutting holes and mending good damages to match with existing surface complete in all respect excluding glazing. (b) Openable steel windows as per IS sizes with side hung shutters and horizontal glazing bars. [The extra rate admissible for the openable portion only]	Sq.m.	22.00		
18	M.S. integrated grill as per approved design integrated with steel window or ventilator, joints continuously welded with M.S.flats and bars.	kg	350.00		
19	Labour for taking out steel door and window frame for repairs and re-fixing the same (or replacement by new one) including mending good damages (excluding the cost of repair of damages) and applying a protective coat of paint.	Each	8.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
20	Dismantling all types of masonry excepting cement concrete plain or reinforced, stacking serviceable materials at site and removing rubbish as directed within a lead of 75 m. In all floors at any height and level including roof	Cu.M	5.00		
21	Supply of labour. Mazdoor (Male)	Each	30.00		
22	Removal of existing treatment such as old terfelt etc. Thoroughly the surface using blower etc. And providing and laying A.P.P (Atactic polypropylene polymer) modified prefabricated 4mm thick water proofing membrane (Hydroflame, Dr. Fixit, Texsa or equivalent) black finished reinforced with non woven polyester matt. consisting of a coat of bitumen primer for bitumen membrane @ 0.40 lit./ Sqm. by the same membrane manufacture of density of 25° C 0.87-0.89 Kg./lit. and viscosity 70-160 cps over the primer coat the layer of membrane shall be laid using Butane Torch and ceiling all joints etc. and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be : joint strength in longitudinal and transverse direction at 23° C as 650/450 N/5 cm Tear strength in longitudinal and transverse direction at 300/250 N. shoffing point of membrane not less than 150° C Cold flexibility shall be upto 2° C when tested in accordance with ASTM, D-5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane. 4mm thick (work should be guaranteed for 10 years)	Sqm.	180.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
23	<p>Supply and apply a flexible FPO based membrane for expansion joint width of 100 mm by Supply and applying an epoxy based membrane adhesive base coat & top coat.</p> <p>Product: Sikadur®-Combiflex® SG System or equivalent</p> <p>Product requirements: Chemical Base Modified flexible Polyolefin (FPO) with advanced adhesion Fire Rating Euroclass E (EN ISO 11925-2, classification to EN 13501-1) Service Temperature -30°C min. to +40°C max. in wet conditions -30°C min. to +60°C max. in dry conditions Tensile Strength > 12 N/mm² (EN 12311-2) Tear Strength > 40 N/mm (ISO 34-B) Elongation at Break > 600 % (EN 12311-2) Seam strength >300 N/5cm (2 mm) (EN 12316-2) >400 N/5cm (2mm) (EN12317-2) Behaviour under hydrostatic pressure 6bar/72h No leakage (EN 1928-B) Thermal Resistance Thermal ageing:Passed (SIA V280, 1996) Bonding test: No cracks at -40°C (EN 495-5) Artificial weathering:7500 h passed (SIA V280, 1996) Adhesive Product: Sikadur®-31 C or equivalent Consumption: 1.4 kg/m (strip width 200 mm) Product requirements: mixed density: 1.75 kg/ltr; bond strength > 1.5 N/mm². The rates should include the repair of edges, backing material, tools tackles etc all complete.</p>	Mtr.	440.00		
24	<p>Supplying & applying metal 2mm / Aluminium / SS-plate for protection of membrane – to keep one side fixed.</p>	Mtr.	440.00		
25	<p>Precise cutting of tile joints for cleaning existing cementitious grout and re-grouting the joints of tiles having joints of 3mm to 4mm width, using epoxy grout mix of organic coated filler of desired shade including filling / grouting and finishing complete as per direction of Engineer-in-charge.</p> <p>Note: The application should be done through the authorised applicator of the contractor and should be guaranteed for a period of Minimum 3 Years against water seepage.</p> <p>Preferred Make: Leticrete, Asian Paints or Fosrock</p>				

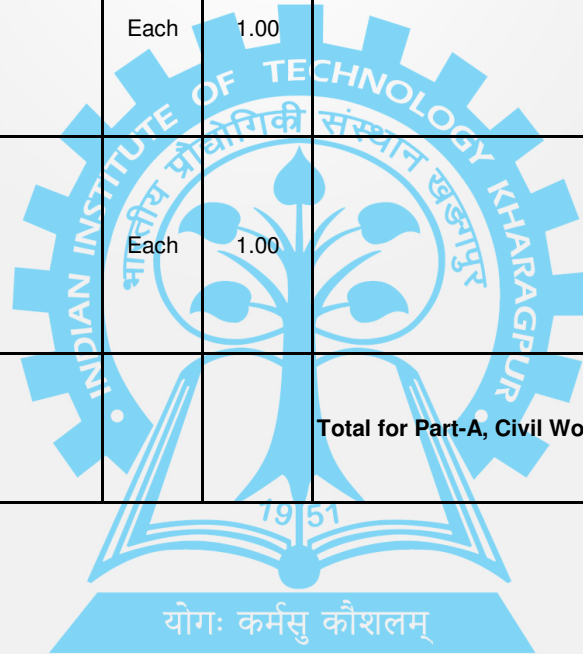
Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
	i) Size of tile - 300mm x 300mm	Sqm	18.00		
	ii) Ceramic Drain Channel	Rm	25.00		
26	Providing and applying tack coat with Caionic Bitumen Emulsion of approved grade conforming to IS: 8887-1978 on the prepared surface cleaned with Hydraulic broom, moistening the surface including cost and carriage of emulsion, hire charges of machinery and labour, cost of fuel and lubricants all complete as per Clause 503 of Specifications for Road & Bridge Works of MoRT&H (5th Revision). On Granular surfaces treated with primer (Using Bitumen emulsion at the rate of 0.25 to 0.30 kg per sqm.)	Sq.m.	618.00		
27	Providing and laying bituminous macadam with Mobile Hot Mix Plant (Light Duty) using approved crushed aggregates of specified grading as per Table 500.4 premixed with bituminous binder, transported to site laid over a previously prepared surface at specified laying temperature by means of approved and suitable arrangements to the required grade, level and alignment and rolled with suitable power roller for break down, inter-mediate and finished rolling as per specification to achieve the desired compaction including cost and carriage of stone materials and bitumen, hire charges of machinery and equipment, cost of fuel and lubricants and wages of operational staff, quality control complete as per Specifications for Road & Bridge Works of MoRT&H (5th Rev). For Grading II (19 mm nominal size, 50-75 mm thick) In Base / Binder Course of 50 mm compacted	Sq.m.	618.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
28	Providing, laying and rolling of Open - graded premix surfacing of 20 mm thickness composed of 13.2 mm (@ 0.018 m ³ per m ²) and 11.2 mm (@ 0.009 m ³ per m ²) size stone aggregates, including thoroughly cleaning of the surface, screening, cleaning and pre-heating stone chips and fully pre-coating the same either using viscosity grade paving bitumen or cut-back or emulsion, carrying the mixture by any suitable arrangements, laying the mixture uniformly over the surface, including line, grade and level to serve as wearing course on a previously prepared base, including mixing in Mobile Hot Mix Plant (Light Duty) and thoroughly rolling with a smooth wheeled roller 8-10 tonne capacity, finished to required level and grades including the cost and carriage of stone chips and matrix, heating the matrix, preheating the aggregates to required temperature and including the hire charges of Mobile Hot Mix Plant (Light Duty) and other machinery, pay of operators, cost of fuel and lubricants etc. complete to be followed by seal coat of either Type A or Type B as per Technical Specification Clause 508 for Rural Roads of MORD - Using Mobile HMP (Light duty).	Sq.m.	618.00		
29	Providing and laying Premixed Seal Coat (Type B) with approved quality sand/grit @ 0.6 m ³ / 100 m ² and bitumen binder on thoroughly cleaned black top surface coated with tack coat, including heating and mixing cleaned sand/grit (100 % passing through 2.36 mm sieve and retained on 180 micron sieve) uniformly with bitumen binder, laying and spreading the mix at an uniform rate using suitable means, brushing the surface, if necessary, to ensure uniformity, followed by rolling with power roller including the cost and carriage of binder and aggregates, cost of heating the binder & aggregates and all other incidental charges, cost of fuel and lubricants, including hire charges of machineries, tools & plants required for construction and quality control complete as per Clause 511 of Specifications for Road & Bridge Works of MoRT&H (5th Revision). - By Manual Means with Hot Bitumen Binder (@6.80 kg / 10 Sq.m.)	Sq.m.	618.00		
30	Supplying, spreading and consolidating moorum with requisite depth including consolidating by power roller to proper grade and camber including watering, guarding, barricading and making necessary earthen bundh to protect the edges and pouring water, mending cracks by rolling etc. The rate includes the supply of moorum, carriage, loading, unloading and stacking at road side and spreading including all incidental charges of roller, cost of fuel & lubricants etc. all complete. (The payment will be made after deduction of 1/13th for the shrinkage).	Cu.m.	6.00	योग: कर्मसु कौशलम्	

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
31	Supplying, fitting & fixing UPVC pipes A- Type and fittings conforming to IS:13592-1992 with all necessary clamps nails, including making holes in walls, floor etc. cutting trenches in any soil through masonry concrete structures etc if necessary and mending good damages including joining with jointing materials (Spun Yarn, Valamoid/Bitumen/M-Seal etc) complete.				
	a) UPVC Pipes.110 mm. Dia.	Mtr.	32.00		
	b) Bend 87.5 degree.110 mm. Dia.	Nos	3.00		
	c) Shoe.110 mm. Dia.	Nos	3.00		
32	Removal of rubbish, earth etc. from the working site and disposal of same beyond the compound, in conformity with the Municipal / Corporation Rules for such disposal, loading into truck and cleaning the site in all respect as per direction of Engineer in charge.	Cu.M.	30.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
33	Supply, fitting and fixing for Exhaust Hood & Ducting .				
	a) S.S (304 Quality) Exhaust Hood and filetr (36" widht X 24" Hight)	Rft.	20.00		
	b) Ducting GI 22G (22" X 12")	Rft.	60.00		
	c) 3 H.P Motor with Blower (Crompton Make)	Each	1.00		
	d) Supporting structure (M/S Angle/channel) with painting.	Kg.	100.00		
	e) Electrical works.				
	i) Cable 2.50mm/2 Core	Mtr.	10.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
	iii) MCB-40 AMP	Each	1.00		
	iii) Starter L&T Make	Each	1.00		
	iv) Circuit breaker approved make	Each	1.00		
				Total for Part-A, Civil Works =	



Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
PART-B : ELECTRICAL WORKS					
1	Drawing of wires through conduit/Casing as per rules after supply and fixing of MMS conduit/casing of Suitable 25-32 mm as per requirement , either in recess or in surface as instructed and mending good the damages to original finish and painting on wall. Make: Conduit/Casing-Caping - Presto plast/Precision.	Meter	200.00		
2	Supply and fixing of modular type Flush metal box with inner outer plate, modular cover of the following sizes for fixing of switch socket regulator etc. with necy. connection, recessed in wall and mending good the damages including painting.This includes disconnecting and dismantling the old items and depositing them to store. Make: Modular board and cover: Legrand (Myrius), Crabtree (Platinum range), MK - Wraparound				
a)	2 Module	Each	5.00		
b)	3 Module	Each	10.00		
c)	6 Module	Each	8.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
d)	8 Module	Each	3.00		
3a	S&F of modular type 1M stepped electronic fan regulator on board with all connection. Make: Legrand (Myrius), Crabtree, MK .	Each	8.00		
3b	S&F of modular type 5/6 Amp one way switch on board with all connection.	Each	8.00		
3c	S&F of modular type 15/16 Amp one way switch on board with all connection.	Each	6.00		
3d	S&F of modular type 6 Amp 3 pin shuttered socket on board with all connection.	Each	10.00		
3e	S&F of modular type 6pin, 15/16 Amp socket on board with all connection.	Each	10.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
3f	S&F of modular type blanking plate (1M) on board with fixing. Max. 1 no. blank plate is allowed for power board only.	Each	6.00		
4	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.				
a)	5/6 A switch	Each	50.00		
b)	15/16 A switch	Each	15.00		
c)	3 pin 5/6 A socket outlet	Each	40.00		
d)	6 pin 15/16 A socket outlet	Each	15.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
e)	3 in 1 combined socket 20A Cat No-38808,Make -Anchor	Each	8.00		
f)	5 in 1 combined socket 20A , Cat No-38579,Make -Anchor	Each	8.00		
g)	Ceiling rose, 3 pin, 5 A ISI marked	Each	40.00		
5	Supply and fixing of modular type Surface mounted plastic box with inner outer plate, modular cover of the following sizes for fixing switch socket regulator etc. with nocy. Connection, fixed on wall and mending good the damages including painting. This includes disconnecting and dismantling the old items and depositing them to store. Make: Modular board and cover: legrand (Mosaic), Crabtree(Thames), MK and as required.				
a)	3M	Each	8.00		
b)	6M	Each	8.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
c)	8M	Each	5.00		
6	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. Make: Casing capping— Precision/ Presto plast/ Finolex, Cu wire: Havells/ Finolex/Polycab/ Gloster- 1.1kv grade. Switch, Ceiling Rose etc: Anchor. Modular Switch/ socket: Legrand (Myrius)/ Crabtree(platinum range) /MK (Wraparound).	Each	14.00		
7	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required (Make:1.1kV grade FRLS PVC insulated copper conductor-Havells/Finolex/Polycab, PVC MMS conduit -Precision/Presto plast/Finolex)				
a)	2 X 1.5 sq.mm. + 1 X 1.5 sq.mm. earth wire	Meter	25.00		
b)	2 X 2.5 sq.mm. + 1 X 2.5 sq.mm. earth wire	Meter	150.00		
c)	2 X 4 sq.mm. + 1 X 4 sq.mm. earth wire	Meter	40.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
d)	2 X 6 sq.mm. + 1 X 6 sq.mm. earth wire	Meter	10.00		
e)	4 X 6 sq. mm + 2 X 6 sq. mm earth wire	Meter	10.00		
8	Earthing with G.I. earth pipe 4.5 meter long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required. GI Pipe make: Tata medium/Bansal medium Note: All materials and hardwires are to be supplied by the contractor.	Each	3.00		
9	Providing and fixing 6 SWG dia G.I. wire on surface or in recess	Meter	100.00		
10	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size on wall surface as required. This includes S&F of 2x10 SWG G.I wire as earthing attachment with the cable Upto 35 sq. mm (clamped with 1mm thick saddle)	Meter	90.00		
11	Supply and making end termination with brass compression gland and AL lugs for following size of PVC/XLPE al. conductor cable of 1.1kV grade as required				

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
a)	3.5C x 35 sq.mm	Each	4.00		
b)	4 C x10 sqmm	Each	2.00		
c)	4 C x 6 sqmm	Each	2.00		
12	Supply of 3.5 core XLPE armoured 10 sq. mm aluminium cable 650/1100V grade ,confirming IS : 7098(part-1) Make : Polycab/Gloster/Havells	Meter	90.00		
13	Supplying and fixing of single phase and neutral, sheet steel, MCB distribution board, 240 V ,on surface/recess ,complete with tinned cu busbar, neutral busbar, earth bar, din bar interconnections, powder painted including earthing etc.as required. (But without MCB/RCCB /Isolator) 6 way, Double door IP43. Make : Hager/Legrand/Schnider/or equivalent	Each	2.00		
14	Supplying and fixing 240/415 V MCB of Breaking capacity 10kA & C characteristics on din rail of existing DBs and necessary connection of following pole Make: Legrand/Hager/Schnider/or equivalent				

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
a)	Single pole , 6-32A	Each	15.00		
b)	Double pole, 63A	Each	4.00		
c)	Tripple pole, 32A	Each	4.00		
d)	Four pole,40A	Each	4.00		
15	Dismantling of old and unused wirings, cables, Earth spikes, unused earth strips, Board with switch, socket,light fittings etc in one room and removing the items and cleaning the areas.Dismantling items should be deposited to the store.	One Job	8.00		
16	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, onsurface/ recess, complete with tinned copper bus bar, neutral busbar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/ 4 way (4 + 12), Double door	Each	2.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
17a	Installation, testing and commissioning of ceiling fan(36", 48", 56" etc), including wiring the down rods of standard length (upto 30 cm) with 1.5sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.	Each	20.00		
17b	Rewinding & reassemble of 48" ceiling fan without changing the bearing .	Each	30.00		
17c	Overhauling with assembling of 48"ceiling fan with changing the bearing(SKF Make Bearing) .	Each	70.00		
18	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. Up to 510 mm sweep.	Each	3.00		
19	25 W Led street light,versatile pressure die-cast aluminium IP65, 5000k,240V, Efficacy- greater than equal to 95% In-built electronic driver with APFC & THD<10%.Output Short-Circuit, Over Voltage, Surge & Phase to Phase Protection. CRI >80, LED beam angle= 120° Make : Philips/Syska/Havells/Wipro or equivalent . Note : Contractor should given 5 years guarantee of total Led set like driver, lamp etc after commissioning at site.	Each	10.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
20	Only fixing of light fittings (Tube, LED etc) on wall /ceiling or as desired on round wooden block/ MS clamp and connection complete after assembling and testing, providing 3*1.5 Sq.mm. PVC insulated Cu wire. This includes disconnecting and dismantling the old items and depositing them to store. Note: a) Round wooden blocks and all hard wares as reqd. are to be provided by the contractor. Dept will supply only the light fittings.	Each	30.00		
21	Fixing only exhaust fan after making hole in wall and making gooddamages and smooth cement finish etc. as practicable as possible and providing necy. length of PVC insulated wire and making connection for exhaust of following diamete. Up to 18".	Each	2.00		
22	Supply & Fixing GI louver shutter on wall with necy. bolts & nuts (6 mmdia x 62 mm long) 30 cm Exhaust fan (12")	Each	4.00		
23	Supply only 12 inch metal exhaust fan,1400 rpm, air delivery-1600 cu. Mtr/hr, 230 V. Make :Cromton Graves/Havells/Bajaj/or equivalent	Each	2.00		
24	Supply only 18 inch metal exhaust fan,1400 rpm, air delivery-6120cu. mtr/hr, 230 V. Make : Cromton Graves/Havells/EPC or equivalent	Each	3.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
25	<p>Supply of 18w LED tube light with fittings(PC Housing).Cool white. LED Tube Efficacy >100 lumen /watt , p.f greater than 0.95, THD lesser than 10% with integrated electronics driver.(operating voltage 200 V-270 V AC) with overvoltage, under voltage and shortcircuit protection with aluminium heat sink. LED chip should be of Cree, Nichia, OSRAM, Philips make. Make:Philips/Crompton/Havells/HPL/Syska/Goldwyn. Note: 1. Manufacturerer has to provide LM 79 & 80 certificates from NABL accredited laboratories/Govt. approved Labs . 2. Contractor has to provide five years replacement guarantee of the LED tube light with fittings after installation and commissioning of the units at site. 3. Labeling on each LED tube light with paint/permanent markers mentioning brief description , date of installation, date of expiry of guarantee etc is mandatory.</p>	Each	25.00		
26	<p>Supply & fixing of 11 watt pl Electronics choke, Equivalent to Model no.IZ-D/E 1X10-14/240 osram make in the Existing fitting Make:Osram/Havells/Crompton.</p>	Each	90.00		
27	<p>Supply & fixing of 11 watt pl lamp 2pin,cool white ,Equivalent to Model No: PL-S-2P,11W/865 Philips make. Make:Philips/Crompton Graves.</p>	Each	180.00		
28	<p>Supply & fixing of 36w tube light in Tube fitting , Make- Philips/Crompton Graves</p>	Each	10.00		

Item No.	Description of Item	Unit	Quantity	Rate (Rs. In figure & words)	Amount (Rs. In figure & words)
29	Supply & fixing of 36 W ,open type Cu ballast,240V,Make- Philips/Crompton Graves	Each	5.00		
30	Supply and fixing 6A,angle holder white ,cat no-39527, Make- Anchor.	Each	30.00		
31	Supplying of ceiling fan sweep 1200 mm, Displacement in Cmm 221. Model:Usha Technix 5 star,Colour: White. Make: Usha/C.G/Orient.	Each	8.00		
TOTAL FOR PART-B, ELECTRICAL WORKS =					
GRAND TOTAL (PART-A + PART-B) =					
Rupees in words :					
Signature of the Contractor with date & seal					

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for Repair and Renovation at toilets, Changing of MS windows, Painting of Varandah, Staircase, Students room, Expansion Joints, Road upto JCB Hall and Plinth Protection in HJB Hall of Residence at IIT Kharagpur.

FORM OF TENDER

(To be filled by the Tenderer with sign & stamp and submitted within the Financial Bid envelope)

To
The Superintending Engineer (Civil)
Civil Construction & Maintenance Section
Indian Institute of Technology
Kharagpur, West Bengal

I/We, _____ Son/Daughter of Sri _____
Proprietor/Partner/CEO/MD/Director of M/s. _____ of
(Address) _____

having examined the site of works, carefully read and understood the Specifications, General Conditions of Contract and Conditions of the Tender, hereby tender and undertake to execute and complete all the works required to be performed in accordance with the Specifications, Bill of Quantities, General Conditions of Contract, the rates and prices set out in the annexed Bill of Quantities within _____ days / weeks / months from the seventh day of the date of receiving work order.

THE TOTAL AMOUNT PUT TO TENDER = Rs. _____ (Rupees
_____).

I/We have submitted Account Payee Demand Draft No. _____ dated _____ in favour of **IIT Kharagpur** payable at **Kharagpur** for Rs. _____ (Rupees _____) with the tender as **Cost of Tender Document**.

I/We have submitted Account Payee Demand Draft No. _____ dated _____ in favour of **IIT Kharagpur** payable at **Kharagpur** for Rs. _____ (Rupees _____) with the tender as **Earnest Money**.

I also declare that the information / documents furnished along with the application and tender are true and authentic to the best of my knowledge and belief. I am well aware of the fact that furnishing of any false information / fabricated document would lead to rejection of my tender / termination of contract at any stage besides liabilities towards prosecution under appropriate law. Each page of the tender document and papers submitted by my Company are authenticated, sealed and signed, and I take full responsibility for the entire documents submitted with this tender.

I/We agree that the period for which the tender shall remain open for acceptance shall not be less than **90 Days** from date of opening of tender.

Signature of the Tenderer / Authorised person

(Seal of the Tenderer)

Witness :

Name of the Tenderer _____

Signature : _____

(in Block letters)

Name : _____

Address : _____

(in block letters)

Address : _____

