

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Routine civil maintenance work for Academic Area at IIT Kharagpur (Part I)."



INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR, WEST BENGAL

TENDER DOCUMENT
FOR

Routine civil maintenance work for Academic Area at IIT Kharagpur (Part I)
PART – I: TECHNICAL BID

NOTICE INVITING TENDER NO. : SE(C)/IIT/TEN/2018-19/031 (Recall-1)
DATED : 06.07.2018

JULY 2018

Cost of Tender Document : ₹1000.00 (Non-Refundable)
Last Date & Time of Submission : 07.08.2018, upto 3:00 pm

CIVIL CONSTRUCTION & MAINTENANCE SECTION
IIT, KHARAGPUR,
WEST BENGAL

SUPERINTENDING ENGINEER (CIVIL)
IIT KHARAGPUR

योगः कर्मसु कौशलम्

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

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CCM Tender Sl. No. _____

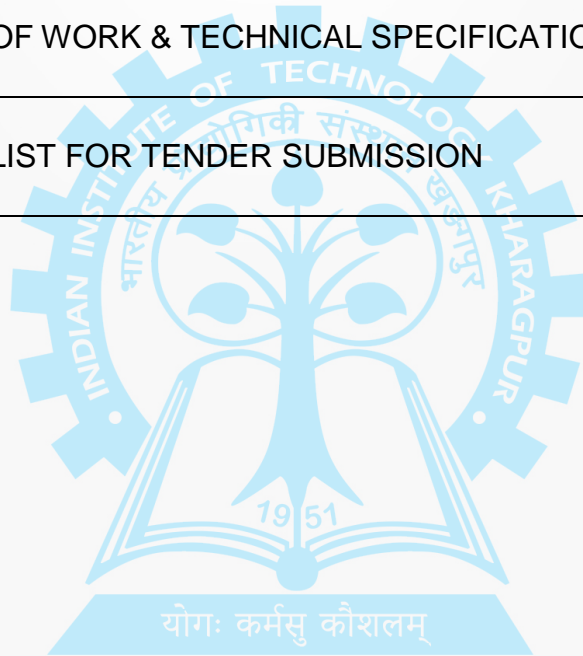
Dated _____

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

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**INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR**

No. SE(C)/IIT/TEN/2018-19/031(Recall-1)

Date: 06.07.2018

NOTICE INVITING TENDER

The Superintending Engineer (Civil), IIT Kharagpur, invites sealed **Percentage 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 bona-fide agencies meeting the minimum qualification criteria for the following work:

Name of work	Estimated Amount (₹)	Earnest Money Deposit (₹)	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
Routine civil maintenance work for Academic Area at IIT Kharagpur (Part I)	10,00,000.00	20,000.00	04 (Four) Months	09.07.2018 03:30 PM	07.08.2018 upto 03:00PM	07.08.2018 at 3:30 PM

Cost of Tender Paper ₹ 1,000.00 (Rupees One Thousand only), **NON REFUNDABLE**, should be deposited in the form of DD only in favour of **IIT Kharagpur**, payable at **Kharagpur**. Tender without 'Cost of Tender Document' will be summarily rejected. The Earnest Money (EMD) should be deposited in the form of DD only in favour of IIT Kharagpur, payable at Kharagpur. Tender without requisite EMD will be summarily rejected. Validity of both DD should be at least 03 months from the date of publication of NIT. The DD for Cost of Tender Paper and DD for EMD should be submitted in a separately sealed envelope kept within the main envelope containing another two envelopes of Technical & Financial Bid.

Eligibility Criteria

Contractors who fulfill the following minimum qualifications criteria shall be considered as eligible bidder:

Agencies should have satisfactorily completed the works as mentioned below during the last 07 (Seven) years ending last day of the **June, 2018**:

- i) 03 (three) similar works each costing not less than 40% of estimated cost or
- ii) 02 (two) similar works each costing not less than 60% of estimated cost or
- iii) 01 (one) 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: Repair and Renovation / Maintenance work of Buildings.

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. Certificated from private individuals / organizations for whom such works have been executed shall not be accepted.

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>. Corrigenda, if any, will be published only on Institute Website and Central Public Procurement Portal. *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.*

Rates quoted by the bidder should be GST compliant.

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 120 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 (CCM)
- 3) Vice Chairman (CCM)-Civil
- 4) Sr.Executive Engineer (Civil)
- 5) Executive (CCM)
- 6) Asstt./Jr. Engineer (Civil)
- 7) Notice Board
- 8) Office file

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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 **(04) Four Months** & will be reckoned from the 7th day from the date of issue of Work Order or handing over of site, whichever is earlier.
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 a **Separately Sealed Envelope** within the main envelope. 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 and manner 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, 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**

A. Contractors who fulfill the following requirements shall be considered as Eligible Bidder: Agencies should have satisfactorily completed during the last 07 (Seven) years ending last day of the *June 2018*:

- a) 03 similar works each costing not less than 40% of estimated cost, i.e. **Rs. 4,00,000.00 or**
- b) 02 similar works each costing not less than 60% of estimated cost, i.e. **Rs. 6,00,000.00 or**
- c) 01 similar work costing not less than 80% of estimated cost, i.e. **Rs. 8,00,000.00**

executed under Central/State Government Department or Central/State Autonomous Body or Central/State Public Sector Undertaking. **Completion certificate** issued by Competent Authority will only be considered as credential.

Similar work shall mean: **Repair and Renovation / Maintenance work of Buildings.**

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. 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 within Technical Bid.

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7. Submission of Bid

The bids shall be submitted in **Two Bid System** in **Three separate sealed envelopes**:

I. **Envelope-1 : Tender Fee and EMD** will comprise of -

- i) **Cost of Tender Paper** Rs. 1000.00, NON REFUNDABLE in the form of DD in favour of IIT Kharagpur, payable at Kharagpur (validity of DD should be at least 03 months from the date of publication of NIT). Tender without 'Cost of Tender Document' will be treated as cancelled.
- ii) **EMD** of requisite amount in the form of DD in favour of IIT Kharagpur payable at Kharagpur (validity of DD should be at least 03 months from the date of publication of NIT). Bid without EMD would be summarily rejected.

II. **Envelope-2 : Technical Bid** will comprise of -

- i) Self certified copies of 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.
- ii) Original Tender Document – Part-I: Technical Bid duly Stamped & Signed in all pages.
- iii) Self certified copies of Statutory documents like Trade License, PAN, IT Return for last 3 years, GST Registration details etc.

III. **Envelope-3 : Financial Bid** will comprise of -

Original Tender Document – Part-II: Financial Bid with duly filled-up **Schedule of Quantities** and **Form of Tender** as an acceptance to the terms and conditions set in the tender (stamped & signed in all pages).

All the envelopes should be duly marked on top with **NIT Number, Name of work and Tender Fee & EMD / Technical Bid / Financial Bid** as the case may be and the **name of the bidder**. All these three envelopes to be put in another sealed large envelope duly marked on top with **NIT Number and Name of work and name of the bidder**. 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. Each and every page of the tender documents and correspondences accompanying the tender shall have to be duly signed and stamped by the Bidder / Authorised Signatory before submission. The person / officer signing the tender / bid should be the **Owner / Proprietor / Partner / CEO / MD / Director** of the company or delegated with an appropriate **Power of Attorney (duly endorsed by a Notary Public)** to sign such documents by the **Owner / Proprietor / Partner / CEO / MD / Director** of the company.
9. The bidder shall have to submit certified copies of valid Trade License, PAN, Income Tax Return for last 3 yrs, GST registration details, other statutory tax clearance certificates (if any) and credential documents fulfilling the minimum eligibility criteria along with his tender. The original copies of these documents will have to be produced when demanded for verification.
10. All Percentages, Rates, Prices, Amounts and Sums quoted by the bidder shall be in Indian currency only. The language used throughout shall be English.
11. All Rates, Amounts, Percentages & Sums shall have to be quoted in indelible ink and written both in figures and words. If the rate/percentage quoted in words does not tally with the rate/percentage quoted in figures then the rate/percentage which corresponds to the lesser amount shall be considered.
12. Any overwriting / correction / applying correction fluid shall be avoided and in case any correction is made the same must be initialized and stamped.
13. 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.
14. 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.

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15. The bid shall remain valid for a period of **120 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.
16. **The rates quoted by the tenderer should be inclusive of GST**, 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.
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.

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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. 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.
3. 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.
4. All temporary arrangements, staging, working platforms etc. is to be provided by the tenderer 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.
5. 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 metre. 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.
6. All concreting works 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.
7. 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.
8. The contractor will have to maintain the work for **SIX** calendar months from the certified date of its completion.
9. The job is to be done as per CPWD specifications Volume I and II, as applicable and provisions made in relevant IS codes must be followed. Wherever these are silent, the construction and completion of works shall conform to sound engineering practice as approved by the Engineer-In-Charge. In case of any dispute arises out of the interpretation of the above, the decision of the Engineer-In-Charge shall be final and binding to the contractor.
10. The bituminous road work shall be carried out by using bitumen of grade VG30 preferably from IOCL whenever applicable.
11. **Roof treatment work / water proofing treatment work should be guaranteed by the contractor for 10 years after successful completion of work, wherever applicable.**
12. The splashes of paints over doors, windows and floor shall be cleaned thoroughly after execution of the work.
13. Irrespective of rates quoted by the bidder, the contractor shall be solely responsible for payment of *Minimum Wages* as stipulated by the Government from time to time.

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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' representatives 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 03years 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 particular area, primer and paint to be used should be same approved by IIT Khargpur.

15. The contractor shall take adequate precaution and safety measures while executing the maintenance work so as not to cause any damage to adjacent areas, rooms, toilets, water main and electrical / networking lines / cables etc. Suitable safety arrangement should be provided as per CPWD safety code.
16. 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.
17. As the work relates to the *Academic Campus* and several works are to be attended on an emergency basis, the contractor has to ensure deployment of suitable work-force on all days.
18. The contractor has to ensure that complains handed over to him has to be taken up immediately and there should be no delay in executing the works.
19. Containing original priced offer in the prescribed format as detailed in Schedule of Quantities of the tender document duly signed and stamped. No condition / stipulation shall be provided in the priced offer (Part-II). In case of any deviation / stipulation found in the priced offer, the same shall be considered null and void and the offer is liable to be rejected.
20. The right to reject all offer(s) or split up the total requirement and award the contract to one or more than one party if considered necessary or to cancel the Tender rests with IIT Kharagpur.

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SCOPE OF WORK & TECHNICAL SPECIFICATION

The scope of work includes: *Routine civil maintenance work for Academic Area at IIT Kharagpur (Part I)*

APPROVED MAKE LIST OF MATERIALS TO BE USED IN CIVIL, SANITARY & WATER WORKS

SL. NO.	ITEM	SUGGESTED BRAND NAME OR SIMILAR (APPROVED BY THE AUTHORITY)
01.	Cement (PSC)	ACC / Ultratech / Ambuja / Lafarge / Birla
02.	Reinforcement Steel	TATA / SAIL / RINL
03.a	Structural Steel	TATA / SAIL / RINL
03.b	Lighter Structural sections not manufactured by TATA/SAIL/RINL	Shyam Steel / SRMB / Jindal (Hissar)
04.	Ceramic Tiles	Johnson / Kajaria / Somany
05.	G.I. Pipes	TATA / Jindal
06.	G.I. Fittings	HB / R
07.	Extruded Aluminum sections / Grill	HINDALCO / INDAL / JINDAL
08.	P.V.C. Shutters	Sintex / Raunaq / Duroplast
09.	P.V.C. Pipes	Oriplast / Supreme / Finolex
10.	P.V.C. Cistern	Parryware / Hindware / Cera
11.	P.V.C. Closet Seat Cover	Parryware / Hindware / Cera / Prayag
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.	IPWC/EPWC/Urinal/Basin/Lab Sink	Parryware / Hindware / Cera
17.	SS Sink	Parryware / Cera / Nirali
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	NECO / BIC / D.N.Sinha / AMC / ALC
24.	Gun Metal Wheel Valve	Zoloto / Alto / Leader
25.	Mirror / Glass Panes	Modi Guard / Saint Gobain
26.	Wall Putty	JK / Birla / Sika
27.	Internal & External Paint and Primer	Asian Paints / Berger / AkzoNobel
28.	APP Membrane	SIKA / PIDILITE / FOSROC / TIKIDAN
29.	Anti corrosive water proofing paint with Aluminium finish	SIKA / Shalimar
30.	Flush Door	Green Ply / Century Ply

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31.	Architectural Hardware fittings	
	a) MS	Mowjee
	b) Anodized Aluminium	Allen / Metco / N.L.C.O.
32.	SS Railing Sections	Ozone / D-Line / Jindal
33.	Interlocking Paver Tiles	Hindustan Tiles / Wonder / Ultra Tiles
34.	Sunken floor water proofing	Choksey / Sika / BASF/ Fosroc
35.	Gypsum False Ceiling	Gyprock / Armstrong
36.	PVC Flooring	Responsive / Armstrong / Wonder Floor / Tarkett
37.	Polysulphide Sealant	Pidilite / Fosroc / Choksey / Sika / BASF
38.	Polycarbonate Sheets	GE / Macrolux / Polytechno / Danpalon
39.	Vitrified Tiles (double charged or fully vitrified)	Johnson, Somany, Kajaria
40.	Stainless steel D-handles	Godrej, Hettich, D-line, Dorma, Dorset, Ozone
41.	Door Locks	Godrej, Dorma
42.	Weather Silicon	Pidilite, Choksey, Forsoc, Sika
43.	Aluminium Cladding sheets	Alstrong, Alpolic, Alucobond, Alstone International, Aludecor Lamination
44.	Water proofing / Injection Grouting	Fosroc, Choksey, Sika, BASF
45.	Ply board	Greenply, Kitply, Century
46.	Door Closer/Floor spring	Godrej, Ozone, Hettich, Dorma, Hardwyn
47.	Bitumen (grade VG30)	IOCL

Note: For items not covered in the above list or in case of non-availability of preferred make of any item listed above, the make / brand to be used in the work, should have prior approval from the Engineer-In-Charge.

योग: कर्मसु कौशलम्

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CHECK LIST FOR TENDER SUBMISSION (TWO BID)

(To be filled by the Tenderer by putting "√" and to be signed & stamped)

Sl. No.	Description	Yes	No
1	Submitted requisite Tender fee		
2	Submitted requisite EMD		
3	Each pages of the tender document duly signed & stamped		
4	Form of Tender properly signed, stamped and enclosed with Financial Bid		
5	Financial Bid filled up with quoted prices (% above / below / at par) with proper Signature & Stamp		
6	Tender fee & EMD submitted in separately sealed envelope and duly marked on top with "NIT Number:", "Name of work:" and "Tender Fee & EMD"		
7	Technical Bid & Financial Bid submitted in separate sealed envelope and duly marked on top with "NIT Number:", "Name of work:" and "Technical Bid" / "Financial Bid" as the case may be and the "Name of the bidder :"		
8	All the three Envelopes put in another sealed Envelope duly marked on top "NIT Number:" , "Name of work:" and the "Name of the bidder :"		

Name of the Bidder _____

(in Block letters)

Signature: _____

Address: _____

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INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR, WEST BENGAL

TENDER DOCUMENT
FOR

Routine civil maintenance work for Academic Area at IIT Kharagpur (Part-I).

PART – II: FINANCIAL BID

NOTICE INVITING TENDER NO. : SE(C)/IIT/TEN/2018-19/031 (Recall-1)

DATED : 06.07.2018

JULY 2018

Last Date & Time of Submission : 07.08.2018, upto 3:00 pm

CIVIL CONSTRUCTION & MAINTENANCE SECTION
IIT, KHARAGPUR,
WEST BENGAL

SUPERINTENDING ENGINEER (CIVIL)
IIT KHARAGPUR

योग: कर्मसु कौशलम्

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

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CCM Tender Sl. No. _____

Dated _____

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Routine civil maintenance work for Academic Area at IIT Kharagpur (Part I)."

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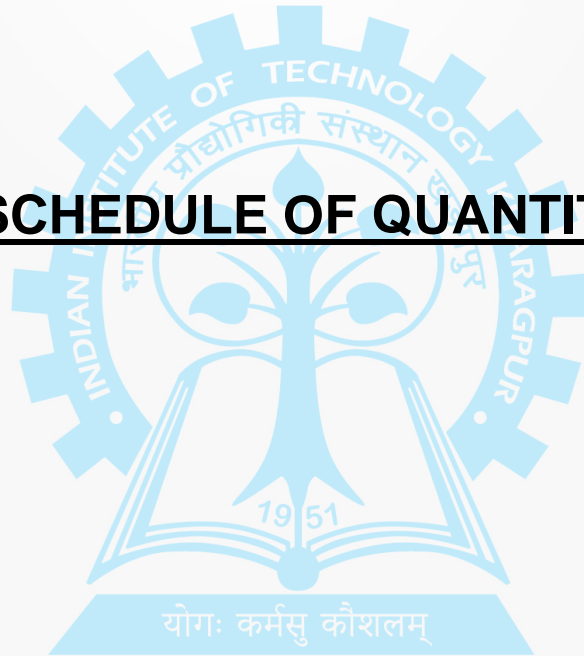


INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Routine civil maintenance work for Academic Area at IIT Kharagpur (Part I)."



SCHEDULE OF QUANTITIES



Civil Construction and Maintenance Section

IIT Kharagpur

Name of work : Routine civil maintenance work for Academic Area at IIT Kharagpur (Part -I)

SCHEDULE OF QUANTITIES

Part A

Sl. No.	Description of Item	Unit	Qty.	Rate (Rs.)
1	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared.	sqm	R.O	4.40
2	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. In cement mortar	Cum	R.O	1,016.27
3	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.			
	a) Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	Cum	R.O	1,202.34
	b) Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	Cum	R.O	741.81
4	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in-charge.	Cum	R.O	1,754.04
5	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured): From brick work in cement mortar	Nos	R.O	3.38
6	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. For thickness of tiles 10 mm to 25 mm	sqm	R.O	38.05
7	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material within 50 meters lead as directed by Engineer-in-charge.	sqm	R.O	29.30
8	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.			-
	All kinds of soil	Cum.	R.O	151.88
9	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed.			-
	Ordinary rock	Cum.	R.O	266.56
10	Supplying and filling in plinth with sand under floors, including watering,ramming, consolidating and dressing complete.	Cum.	R.O	1,105.87
11	75 mm thick back filling for pitching including supplying of required materials and consolidation etc. complete with :			-
	Moorum	Sqm	R.O	67.35
12	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :			-
	a)1:4:8 (1 Cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size)	Cum	R.O	5,400.20
	b) 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size).	Cum	R.O	5,941.47
	c) "1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size).	Cum	R.O	6,610.68
	d) 1:1½:3 (1 Cement: 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	Cum	R.O	7,144.54
13	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing :			-
	a) 1:1½:3 (1 cement : 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	Cum	R.O	8,429.72
	b) 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	Cum	R.O	7,895.87
	c) 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	Cum	R.O	7,226.66

Sl. No.	Description of Item	Unit	Qty.	Rate (Rs.)
14	Centering and shuttering including strutting, propping etc. and removal of form for :			-
	a) Foundations, footings, bases of columns, etc. for mass concrete	sqm	R.O	233.88
	b) Suspended floors, roofs, landings, balconies and access platform	sqm	R.O	509.25
	c) Lintels, beams, plinth beams, girders, bressumers and cantilevers	sqm	R.O	413.50
	d) Columns, Pillars, Piers, Abutments, Posts and Struts	sqm	R.O	564.18
	e) Stairs, (excluding landings) except spiral-staircases	sqm	R.O	505.69
	f) Edges of slabs and breaks in floors and walls			-
	i) Under 20 cm wide	metre	R.O	147.36
	ii) Above 20 cm wide	sqm	R.O	640.45
15	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured).			-
	Suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	sqm	R.O	206.81
16	a) Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.			-
	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	R.O	68.25
	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.			-
	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	R.O	68.25
17	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like, including the cost of required centering, shuttering but, excluding cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	cum		8,407.66
18	Brick work with non modular fly ash bricks conforming to IS:12894, class designation 10 average compressive strength in super structure above plinth level up to floor V level in :			
	a)Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	R.O	7,669.10
	Cement mortar 1:6 (1 cement : 6 Coarse sand)	cum	R.O	7,437.03
19	Half brick masonry with non modular fly ash bricks of class designation 10, conforming to IS :12894, in super structure above plinth and upto floor V level.			-
	a) Cement mortar 1 : 3 (1 cement : 3 coarse sand)	sqm	R.O	957.48
	a) Cement mortar 1 : 4 (1 cement : 4 coarse sand)	sqm	R.O	927.94
20	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per directions of Engineer-In-Charge.			-
	a) With cement mortar 1:4 (1 cement : 4 fine sand)	sqm	R.O	319.32
	With cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	R.O	331.38
21	Extra for addition of synthetic Polyester triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 in cement plaster/mortar by using 125 gms. of synthetic Polyester triangular fibre for 50 Kgs. cement used in cement mortar as per directions of Engineer-in-Charge.	Per Bag of 50 Kg of cement	R.O	70.06
22	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In- Charge.	sqm	R.O	444.86
23	Extra for addition of synthetic Polyester triangular fibre of length 12mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 in cement concrete/RCC/Flooring/water retaining structures by using 125gms of synthetic Polyester triangular fibre for 50 Kg cement used as per directions of Engineer-in-Charge.	Per Bag of 50 Kg of cement	R.O	63.91

Sl. No.	Description of Item	Unit	Qty.	Rate (Rs.)
24	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	sqm	R.O	27.01
25	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.			
	Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make.	sqm	R.O	379.80
26	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/ sqm including grouting the joints with white cement and matching pigments etc., complete.	sqm	R.O	991.79
27	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	sqm	R.O	898.15
28	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc., complete.			
	Size of Tile 600x600 mm	sqm	R.O	1,349.88
29	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles and jointing with grey cement slurry @ 3.3kg/sqm	sqm	R.O	562.49
30	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3mm thickness.	sqm	R.O	465.72
31	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.			
	Size of Tile 600x600 mm	sqm	RO	201.45
32	Providing and laying Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).			-
	Size of Tile 600x600 mm	sqm	RO	1,410.36
33	Providing and fixing glass strips in joints of terrazzo/ cement concrete floors.			
	40mm wide and 4 mm thick	metre	RO	63.31
34	Marble stone flooring with 18 mm thick marble stone, as per sample of marble approved by Engineer-in-charge, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete with :			
	Makrana white second quality	sqm	R.O	3,285.78
35	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.			
	Granite of any colour and shade			
	Area of slab over 0.50 sqm	sqm	R.O	3,754.33

Sl. No.	Description of Item	Unit	Qty.	Rate (Rs.)
36	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :			
	25 mm thick	sqm	R.O	1,396.55
37	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	sqm	R.O	1,493.15
38	40 mm thick fine dressed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand) with joints finished flush.			
	Red sand stone	sqm	R.O	761.77
39	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.			
	40 mm thick with 20 mm nominal size stone aggregate	sqm	R.O	437.26
40	Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement.			
	18 mm thick	sqm	R.O	422.13
41	Neat cement punning.	sqm	R.O	51.37
42	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	R.O	17.44
43	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	sqm	R.O	10.07
44	White washing with lime to give an even shade :			-
	New work (three or more coats)	sqm	R.O	20.80
45	Colour washing such as green, blue or buff to give an even shade			-
	New work (two or more coats) with a base coat of white washing with lime	sqm	R.O	28.46
46	Applying priming coat:			
	a) With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	sqm	R.O	42.15
	b) With ready mixed aluminium primer of approved brand and manufacture on resinous wood and plywood	sqm	R.O	42.45
	c) With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	sqm	R.O	35.09
	d) With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)	sqm	R.O	18.81
47	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :			
	One or more coats on old work	sqm	R.O	61.86
48	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :			
	Two or more coats on new work	sqm	R.O	94.54
49	Distemping with 1st quality acrylic distemper (ready mixed) of approved manufacturer, of required shade and colour complete, as per manufacturer's specification.			
	Two or more coats on new work	sqm	R.O	64.09
50	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :			
	Water thinnable cement primer	sqm	R.O	44.56
51	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :			
	Two or more coats on new work	sqm	R.O	101.84
52	Finishing walls with Acrylic Smooth exterior paint of required shade			
	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	sqm	R.O	115.83

Sl. No.	Description of Item	Unit	Qty.	Rate (Rs.)
53	Distempering with 1st quality acrylic washable distemper (ready made) of approved manufacturer and of required shade and colour complete. as per manufacturer's specification.			
	One or more coats on old work	sqm	R.O	35.94
54	Finishing walls with Acrylic Smooth exterior paint of required shade:			
	Old work (One or more coat applied @ 0.90 ltr/10 sqm).	sqm	R.O	54.69
55	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	R.O	105.34
53	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. Removal of existing treatment such as old terfelt etc. throughly the surface using blower etc. will be taken up wherever necessary.The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :			
	3 mm thick	sqm	R.O	502.98
56	Painting with aluminium paint of approved brand and manufacture to give an even shade .			
	Two or more coats on new work	sqm	R.O	82.42
57	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade			
	Two or more coats on new work	sqm	R.O	78.62
58	Brick edging laid lengthwise with half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres :			
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	sqm	R.O	43.65
59	Renewing glass panes, with putty and nails wherever necessary including racking out the old putty			-
	Float glass panes of thickness 4 mm	sqm	R.O	769.24
60	Renewal of old putty of glass panes (length)	metre	R.O	30.69
61	Refixing old glass panes with putty and nails	sqm	R.O	398.85
62	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).			
	Sal wood	cum	R.O	102,968.12
63	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineerin- charge.			-
	Kiln seasoned and chemically treated hollock wood			-
	35 mm thick shutters	sqm	R.O	2,165.31
64	Extra for providing frosted glass panes 4 mm thick instead of ordinary float glass panes 4 mm thick in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured).	sum	R.O	89.66

SI. No.	Description of Item	Unit	Qty.	Rate (Rs.)
65	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:			-
	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	R.O	1,880.90
66	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.			-
	a) Fixed to steel windows by welding	kg	R.O	126.20
	b) Fixed to openings /wooden frames with rawl plugs screws etc.	Kg	R.O	135.60
67	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment).			
	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	Kg.	R.O	136.99
68	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete :			-
	250x16 mm	eack	R.O	171.30
69	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc.complete :			-
	125x64x1.90 mm	each	R.O	78.20
	100X58X1.90 mm	each	R.O	69.58
	5x47x1.80 mm	each	R.O	49.98
70	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.	each	R.O	499.79
71	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	each	R.O	468.37
72	Providing and fixing bright finished brass hasp and staple (safety type) with necessary screws etc. complete :			-
	115 mm	each	R.O	106.24
73	Providing and fixing ISI marked aluminium butt hinges anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary screws etc. complete:			-
	a) 100x63x3.2 mm	each	R.O	88.09
	b) 75x63x3.2 mm	each	R.O	67.83
74	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete :			-
	a) 300x16 mm	each	R.O	256.19
	b) 250x16 mm	each	R.O	228.16
75	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :			-
	a)250x10 mm	each	R.O	106.24
	b) 150x10 mm	each	R.O	77.54
	c)100x10 mm	each	R.O	59.33

Sl. No.	Description of Item	Unit	Qty.	Rate (Rs.)
76	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :			
	a) 125 mm	each	R.O	61.62
	b) 100 mm	each	R.O	54.39
	c) 75 mm	each	R.O	46.97
77	Providing and fixing bright finished 100 mm mortice lock with 6 levers without pair of handles of approved quality for aluminium door, with necessary screws etc complete as per direction of Engineer- in-charge.	each	R.O	571.17
78	Providing and fixing magnetic catcher of approved quality in cupboard / ward robe shutters, including fixing with necessary screws etc. complete.			
	Double strip (horizontal type)	each	R.O	25.93
79	Providing and fixing PVC Door Frame of size 50x47 mm with a wall thickness of 5 mm (± 0.2 mm), made out of single piece extruded PVC profile, with mitred cut joints and joint with 2 nos of PVC bracket of size 190 mm x 100 mm long arms of cross section size 35 x 15 mm & self driven self tapping screws, the vertical door profiles to be reinforced with 40x20 mm M.S. rectangular tube of 0.8 mm , including providing EPDM rubber gasket weather seal throughout the frame, including jointing 5 mm PVC frame strip with PVC solvent cement on the back of the profile. The door frame to be fixed to the wall using 8 x100 mm long anchor fasteners complete, all as per manufacturer's specification and direction of Engineer -in-charge.	metre	R.O	741.03
77	35 mm thick factory made Solid panel PVC Door shutter, made out of single piece extruded solid PVC profiles, 5 mm (± 0.2 mm) thick, having styles & rails (except lock rail) of size 95 mm x 35 mm x 5 mm, out of which 75 mm shall be flat and 20 mm shall be tapered (on both side), having one side thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power, including reinforcing with MS tube of size 40 mm X 20 mm x 1 mm, joints of styles & rails to be mitred cut & joint with the help of PVC solvent cement, self driven self tapping screws & M.S. rectangular pipes bracket of size 190 mm X 100 mm of cross section size 35 mm x 17 mm x 1 mm at each corner. Single piece extruded 5 mm thick solid PVC Lock rail of size 115 mm x 35 mm, out of which 75 mm to be flat and 20 mm to be tapered at both ends, having 15 mm solid core in middle of rail section integrally extruded, fixing the styles & rails with the help of solvent and self driven self tapping screws of 125 mm x 11 mm, including providing 5 mm Single piece solid PVC extruded sheet inserted in the door as panel, all complete as per manufacturer's specification and direction of Engineer-in-charge.			-
	Non decorative finish (matt finish)	sqm	R.O	3,278.18
80	Providing and fixing oxidised M.S. casement stays (straight peg type) with necessary screws etc. complete.			-
	250 mm weighing not less than 150 gms	each	R.O	32.38
81	Providing and fixing bright finished brass casement window fastener with necessary screws etc. complete.	each	R.O	82.66
80	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment).			-
	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	R.O	136.99

SI. No.	Description of Item	Unit	Qty.	Rate (Rs.)
82	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :			-
	a) For fixed portion			-
	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	kg	R.O	428.34
	b) For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)			-
	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	kg	R.O	500.51
83	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of Engineer-in-charge.			-
	Pre-laminated particle board with decorative lamination on both sides	sqm	R.O	1,045.03
84	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):			-
	a) With float glass panes of 4.0 mm thickness			894.17
	b) With float glass panes of 5.50 mm thickness			1,210.66
	c) With float glass panes of 8 mm thickness			1,391.49
85	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.			-
	With stainless steel cover plate minimum 1.25 mm thickness	each	R.O	2,477.40
86	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete			-
	Upto 5mm depth and 5 mm width	metre	R.O	75.31
87	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	each	R.O	432.92
88	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately).	sqm	R.O	5,557.81
89	Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.	kg	R.O	173.77

Sl. No.	Description of Item	Unit	Qty.	Rate (Rs.)
90	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	sqm	R.O	6,464.41
91	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.			-
	Using M.S. angles 40x40x6 mm for diagonal braces	sqm	R.O	3,461.23
92	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.			-
	80x1.20 mm M.S. laths with 1.20 mm thick top cover	sqm	R.O	2,220.54
93	Providing and fixing ball bearing for rolling shutters.	each	R.O	457.40
94	Extra for providing mechanical device chain and crank operation for operating rolling shutters.	sqm	R.O	873.13
95	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanized butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to			-
	12.5 mm thick square edge PVC Laminated Gypsum Tile of size 595x595 mm, made of Gypsum plasterboard, manufactured from natural gypsum as per IS 2095 part I and laminated with white 0.16mm thick fire retardant PVC film on the face side and 12micron metalized polyester on the back side with all edges sealed with the face side PVC film which goes around and wraps the edges and is bonded to the edges and the back side metalized polyester film so as to make the tile a completely sealed unit.	sqm	R.O	1,197.64
96	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.			-
	0.63 mm thick with zinc coating not less than 275 gm/ m ²	sqm	R.O	844.79
97	Providing ridges or hips of width 60 cm overall width plain G.S. sheet fixed with polymer coated J or L hooks, bolts and nuts 8 mm dia G.I. limpet and bitumen washers complete.			-
	0.63 mm thick with zinc coating not less than 275 gm/m ²	metre	R.O	650.10

Sl. No.	Description of Item	Unit	Qty.	Rate (Rs.)
98	Providing and fixing pre-coated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	sqm	R.O	663.73
99	Providing and fixing pre-coated galvanised steel sheet roofing accessories 0.50 mm (+ 0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :			-
	a) Ridges plain (500 - 600mm)	metre	R.O	434.67
	b) Gutter .(600 mm over all girth)	metre	R.O	1,004.57
100	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	R.O	81.52
101	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	R.O	70.48
102	Fully Perforated Gypsum Plaster Board of size 1200 x 2400x12.5 mm having approx. 15 % perforated area with perforation size and pattern as approved by the Engineer-in-charge and as per manufacturer's specification, with all 4 side tapered and backed by acoustical tissue with NRC value not less than 0.60	sqm	R.O	1,369.30
103	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866. The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.			-
	2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified	sqm	R.O	1,193.24
104	2 mm thick flat	sqm	R.O	1,065.53
	Diluting and injecting chemical emulsion for POST- CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) :			
	a) Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete:	metre	R.O	20.26
	With Chlorpyrifos/ Lindane E.C. 20% with 1% concentration			-
	b) Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc.:			-
	With Chlorpyrifos/ Lindane E.C. 20% with 1% concentration	metre	R.O	29.30
	c) Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor:			-
	With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	sqm	R.O	159.06

SI. No.	Description of Item	Unit	Qty.	Rate (Rs.)
	d) Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole :			-
	With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	sqm	R.O	22.97
	e) Treatment at points of contact of wood work by chemical emulsion Chlorpyrifos/ Lindane (in oil or kerosene based solution) @ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same	metre	R.O	230.81
105	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.			-
	15 mm nominal bore	each	R.O	658.36
106	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.			-
	15 mm nominal bore	each	R.O	593.97
107	Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.	each	R.O	70.06
108	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. INTERNAL WORK - EXPOSED ON WALL			-
	a) 15 mm nominal outer dia Pipes	metre	R.O	172.38
	b) 20 mm nominal outer dia Pipes	metre	R.O	217.00
	c) 25 mm nominal outer dia Pipes	metre	R.O	260.72
109	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall			-
	a) 15 mm dia nominal bore	metre	R.O	224.78
	b) 20 mm dia nominal bore	metre	R.O	270.30
	c) 25 mm dia nominal bore	metre	R.O	298.88
110	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :			-
	a) 25 mm nominal bore	each	R.O	516.37
	b) 20 mm nominal bore	each	R.O	478.20
111	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:			-
	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	each	R.O	4,213.66
112	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :			-
	W.C. pan with ISI marked white solid plastic seat and lid	each	R.O	4,122.61
113	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :			-
	Single half stall urinal with 5 litre P.V.C. automatic flushing cistern	each	R.O	7,461.39

Sl. No.	Description of Item	Unit	Qty.	Rate (Rs.)
114	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.			-
	Flexible pipe			-
	32 mm dia	each	R.O	88.33
115	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	each	R.O	986.37
116	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:			-
	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	each	R.O	2,771.82
Part B				
1	Dismantling artificial stone flooring upto 50 mm. thick by carefully chiselling without damaging the base and removing rubbishes directed within a lead of 75 m. In ground floor including roof	Sq.M.	R.O.	59.00
2	Taking out existing partition/ceiling of particle board, masonite board, ply board, soft board etc. of any thickness and refixing same in new position with necessary clamps making holes in walls, floor, roof and mending damages if any. [concrete plaster will be paid separately]	Sqm.	R.O.	64.90
3	Extra for using approved H.B. netting in every third layer in any floor	Sqm	R.O.	48.38
4	Labour for Chipping of concrete surface.	Sqm	R.O.	24.78
5	Polishing only of old marble or terrazo work with oxalic acid powder using 33 gms/sqm by manual labour/machine where necessary	Sqm	R.O.	44.84
6	Washing and cleaning with oxalic acid powder using 33 gms./sq.m, Other than marble	Sqm	R.O.	6.53
7	(a) Supplying & laying of approved brand of scratch proof, semi flexible P.V.C blended homogeneous marble Vinyle flooring in tiles conforming to IS:3461, fixing with synthetic acrylic adhesive after preparing the floor, levelling & smoothening when necessary with suitable putty, as per the design & instruction of the Engineer-in-charge with 2 mm thick.	Sqm	R.O.	682.04
	(b) Supplying & laying of approved make and brand of scratch proof, flexible & homogeneous P.V.C. Vinyle flooring conforming to IS:3462 - 1982 in required finish, fixed with synthetic acrylic adhesive after preparing the floor, levelling & smoothening when necessary with suitable putty, as per the design & instruction of the Engineer-in-charge .2 mm thick (Plain)	Sqm	R.O.	601.80
8	Applying 2 coats of bonding agent with synthetic multi functional rubber emulsion having adhesive and water proofing properties by mixing with water in proportion (1 bonding agent : 4 water :6 cement) as per Manufacturer's specification.	Sqm	R.O.	103.84
9	Single brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand.	Sqm	R.O.	404.74
10	Hydraulic door closer of approved quality as per I.S.I. standard fitted and fixed complete.			-
	a) Heavy type (I.S.I. size 3)	Each	R.O.	1,964.70
	b) Medium (I.S.I. size 2)	Each	R.O.	1,611.88
	c) Godrej Hydraulic door closer fitted and fixed complete. Medium type ,	Each	R.O.	1,964.70
11	Styles and rails of wooden shutters fitted and fixed complete. (Payment to be made on area of new work only). In Ground Floor: 35mm Thick shutter. Sishu, Gamar, Champ, Badam, Bhola, Mogra, Hallak.	Sqm	R.O.	2,570.04
12	Panel (Made of single plank) of door and window shutters to design as directed :19mm Thick panel of 30cm to 45cm width with Sishu, Gamar, Champ, Badam, Bhola, Mogra, Hallak.	Sqm	R.O.	1,319.24

Sl. No.	Description of Item	Unit	Qty.	Rate (Rs.)
13	Taking out shutter of door and window, dismantling by parts (For repair or replacement of damaged parts), reassembling and refitting and rehanging same with old fittings but with new screws as necessary (Where different parts of same shutter are renewed under different item,	Sqm	R.O.	148.68
14	Taking out M.S. or W.I. Grills from wooden frame including cutting lungs from masonry wall and refitting the same and mending good damages after repairs. (Excluding the cost of necessary repair of damages) or doing any other necessary works.	Each	R.O.	116.82
15	Easing door and windows.	Each	R.O.	20.06
16	Easing, oiling and adjusting the steel shutters including scraping all members, and fitting so as to make the shutters easily operable (no extra payment will be made for taking out and fixing glass, if necessary). (Each means a pair of shutter in a frame)	Pair	R.O.	49.56
17	Labour for taking out door and window frame including shutter for repair or replacement of different parts of the frame & prefixing the same including mending good all damages complete. (Concrete and brick work for mending damage will be paid separately) Upto area 2.5 Sq.m	Sqm	R.O.	140.42
18	Taking out door and window shutters and rehanging the same with old fittings. With new iron screws.	Sqm	R.O.	92.04
19	Reparing collapsible gate by cutting out all rivets as necessary re-assembling all members including welding pieces of channels, straightening bent bars and rivetting with new rivets and fitting in position and painting two coats.	Sqm	R.O.	447.22
20	Easing and oiling, cleaning collapsible gate and repairing to locking arrangements.	Sqm	R.O.	20.06
21	labour for taking out rolling shutter (only shutter portion) dismantling by parts for repair or (replacement of damaged parts only), rehanging and refitting the same in position after necessary repairs (excluding the cost of supply of new parts).	Sqm	R.O.	333.94
22	Renewing seam pipe for rolling shutter as per existing size and shape fitting, fixing complete.	Mtr	R.O.	247.80
23	Renewing spring of rolling shutter as per existing size and shape including fitting fixing complete.	Each	R.O.	718.62
24	Renewing side split pin for seam pipe for rolling shutter	Each	R.O.	30.68
25	Oiling and greasing of rolling shutter and repair to in side lock.	Sqm	R.O.	86.14
26	Renewing profile of rolling shutter including fitting & fixing complete as per existing size and shape.	Mtr	R.O.	63.72
27	Easing and oiling, cleaning rolling shutters excluding repair to inside locks.	Sqm	R.O.	14.16
28	Supplying, fitting and fixing glass reinforced polyester translucent fiber glass sheet to match with GCI Corrugation as per IS: 12866-1989 in roof fitted and fixed with 10 m dial "J" or "L" hook, bolts and nuts, limpet and bitumen washers and putty with 150 mm end lap and one corrugation minimum side lap complete. 2.0 mm +/- 0.2 mm thick sheet (3.25 kg/ Sq.m) with			-
	i) Natural white or tinted blue colour	Sqm	R.O.	1,041.94
	ii) Coloured other than natural white or tinted blue	Sqm	R.O.	1,131.62
29	Supplying, fitting and fixing glass reinforced polyester translucent ridging 450 mm long each way as per IS 2866-1989 fitted and fixed with bolts J hooked screws and bitumen washers complete.1.6 mm +/- 0.2 mm thick sheet. , Coloured other than natural white or tinted blue	Mtr	R.O.	718.62
30	Supplying, fitting and fixing glass reinforced polyester translucent ridging 450 mm long each way as per IS 2866-1989 fitted and fixed with bolts J hooked screws and bitumen washers complete.1.6 mm +/- 0.2 mm thick sheet. , Coloured other than natural white or tinted blue	Mtr	R.O.	718.62

Sl. No.	Description of Item	Unit	Qty.	Rate (Rs.)
31	Supplying at site or stackyard or as directed PCC (1:2:4) Fencing Post 215 cm 150 mm X 150 mm section at bottom 100 mm X 100 mm section at top with T-Base 300mm X 150 mm X 100 mm, having 4 nos 6 mm dia vertical M.S reinforcement and 6 mm dia binders @ 200 mm centres finished smooth etc. complete.	Each	R.O.	528.64
32	Fixing post of iron or precast concrete by digging hole in the ground (in all sorts of soil) and embedding the same by packing the hole with cement concrete (1:3:6) (with jhama khoa. For Purulia, Bankura and Darjeeling Hill by Pakur Variety, local black Hard Stone & Bazree respectively) and finishing the top surface to regular shape (as directed) with 15 cm cement plaster (1:6) complete, including the cost of concrete, plaster etc. but excluding the cost of the post: Average dia. Of the hole 200 mm to 300 mm. Depth 450 mm to 500 mm.	Each	R.O.	186.44
33	Supplying, fitting, fixing, Chain link fencing of approved quality with R.C.C posts wooden posts or iron posts by means of galvanised "C" clips to grid of horizontal strands of galvanised high tensile spring steel wire of 12 S.W.G which have to be tensioned and fixed to the vertical posts by means of galvanised special clips, bolts and nuts etc.(The rate is exclusive of the cost of posts)			-
	(a) 50 mm. x 50 mm. x 8 g.	Sqm		488.52
	(b) 75 mm. x 75 mm. x 8 g.	Sqm		395.30
34	Supplying, fitting galvanised 3 ply 12 gauge / 4 points line of barbed wire in fencing (holes already made in the body of the post) or fixed by staples tightening and fixing the wires in taut condition with straining bolts including the cost of cutting and of lapping joints in the wire as necessary but excluding the cost of galvanised staples straining bolt and binding wire where necessary.	Mtr	R.O.	32.66
35	Supplying, fitting and fixing boiling water resistant ply conforming to IS: 303-1989 bonded with phenol formaldehyde synthetic resin of approved make and brand fitted and fixed as per design as per approval and direction of Engineer-in-Charge.[excluding the cost of supporting frame work and teak wood batten/Lipping].			-
	(i) 4mm	Sqm	R.O.	873.20
	(ii) 9mm	Sqm	R.O.	1,213.04
36	False-ceiling Work a) Supplying fitting & fixing concealed of False ceiling Framework with G.I. Section (perimeter channels having one flange of 20 mm. and another flange of 30 mm. with thickness of 0.55 mm. and web of length 27 mm., along the perimeter of the ceiling, screws fixed to the wall with help of nylon sleeves or PVC dash fasteners @ 610 mm c/c. then suspend G.I. intermediate 'C' section with web 90 mm. and flanges of 15 mm. each from soffit @ 1200 mm c/c with ceiling angle of size 25 mm. X 10 mm. X 0.55 mm. fixed to soffit G.I. Cleat and Steel expansion fasteners. Ceiling section of 0.55 mm. thickness having web of 51.5 mm. and two flanges of 26 mm. each with lips of 10.55 mm., are then fixed on to the intermediate channel with the help of connecting clips in the direction perpendicular to the intermediate channel @ 610 mm c/c) with fully threaded fiber cement screws @ 300 mm c/c. All complete as per the drawing and direction of Engineer-in-Charge. Section specification :- Perimeter Channel :- 30 mm X 20 mm X 27 mm, thickness 0.55 mm (min), Intermediate Channel :- 15 mm X 90 mm, thickness 0.90 mm (min), Ceiling Section :- 51.5 mm X 26 mm X 10.55 mm, thickness 0.55 mm (min), Ceiling Angle :- 25 mm X 10 mm, thickness 0.55 mm (min).	Sqm	R.O.	414.18

SI. No.	Description of Item	Unit	Qty.	Rate (Rs.)
	b) Supplying, fitting and fixing of false ceiling framework with powder coated exposed G.I. grid suspension system (E-Grid U-1520 or equivalent load carrying capacity with mid span deflection not exceeding 1/360 span with hanger spacing of 1200mm c/c) consisting of Main Runner 3600 mm long, Cross Tee 1200 mm / 600 mm long and Wall Angle. The Wall Angle shall be fixed on PVC Dash Fasteners on the perimeter of the wall by steel screws with distance 300mm c/c. The Main Runners to be placed @ 1200 mm. The Cross Tee 1200mm will be inserted in the pre-cut slots of Main Runner at a regular interval of 600 mm to form a modular grid of 1200mm X 600mm. Additional Cross Tees of 600 mm shall be placed perpendicular to the Cross Tee 1200 mm long to finally form a grid of 600 mm X 600 mm. Grid of module size 600 mm X 600 mm shall be supported by 6 mm dia G.I. wire from purlins/soffit all complete as per the drawing & directions of Engineer-in-charge.	Sqm	R.O.	402.38
	c) Supplying, fitting & fixing Eco-friendly, Moisture Resistance and Incombustible Gypsum plaster board (Density>700Kg per Cu.M.) conforming to IS 2095- Part 1, 2011 of approved design and brand finished with gypsum jointing compound to form a joint less false ceiling. All complete as per drawing & direction of Engineer - in- Charge. False ceiling with 12.5mm thick tapered edged Gypsum Plaster Board. (For Concealed False Ceiling Work)	Sqm	R.O.	482.62
	d) Supplying, fitting & fixing Eco-friendly, Moisture Resistance and Incombustible Gypsum plaster board/tiles (Density >700Kg per Cu. M.) conforming to IS 2095- Part 1, 2011 of size 595mm X595mm of approved design and brand placed in the Grid module to form a false ceiling. All complete as per drawing & direction of Engineer - in- Charge. False ceiling with 12.5mm thick Square edged Gypsum Plaster Board/tiles of 2' x 2' (For Exposed False Ceiling Work).	Sqm	R.O.	457.84
37	Supply of Labour - Mazdoor (Male)	Each	R.O.	318.01
38	Supply of Carpenter (ordinary)	Each	R.O.	384.21
Part C : Non-scheduled items				
1	Supplying, stacking, spreading & consolidating rubbish to a requisite depth of 100mm at desired density as per instruction of Engg-in-Charge, complete as per specification. (The payment will be made after deduction 1/9th for the shrinkage)	Cum	R.O.	214.76
<p>I agree to execute the work at _____ % [in figure] ABOVE / BELOW / AT PAR (_____</p> <p>_____ percent) [in words] ABOVE / BELOW/AT PAR Department estimated amount/item rates.</p> <p style="text-align: center;">_____ Signature of the Contractor with Date & Seal</p>				

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Routine civil maintenance work for Academic Area at IIT Kharagpur (Part I)."

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.

I agree to execute the work at _____ % (in figure) (_____ percent) (in words) **ABOVE / BELOW / AT PER** the Departmental Estimated Rates.

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 Deposit**.

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)

Name of the tenderer _____
(In Block letters)

Address: _____

