

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Routine Civil Maintenance work in Academic Area Zone-I (Phase-2) at IIT Kharagpur."



INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR, WEST BENGAL

TENDER DOCUMENT
FOR

Routine Civil Maintenance work in Academic Area Zone-I (Phase-2) at IIT
Kharagpur.

PART – I: TECHNICAL BID

NOTICE INVITING TENDER NO. : SE(C)/IIT/TEN/2018-19/069
DATED : 24.10.2018

October 2018

Cost of Tender Document: Rs.1,000.00(Non-Refundable)

Last Date & Time of Submission : 15.11.2018 upto 03:00 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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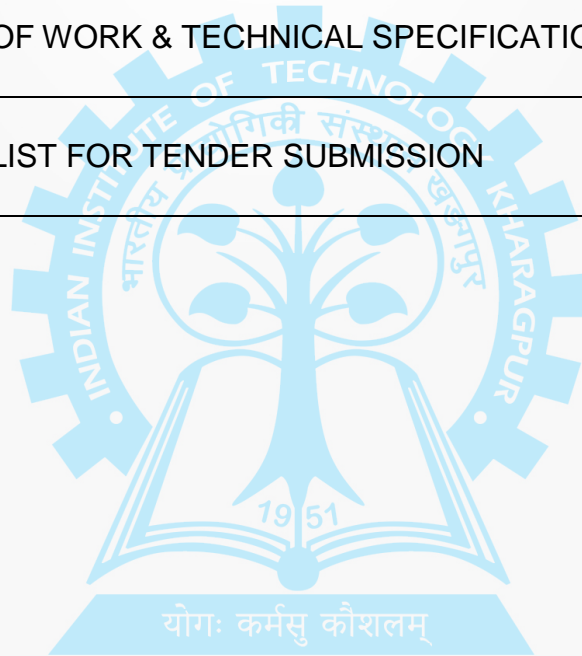
CCMTender Sl. No. _____

Dated _____

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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 in Academic Area Zone-I (Phase-2) at IIT Kharagpur.	29,89,886.00	59,800.00	06(Six) Months	25.10.2018 03:30 PM	15.11.2018 upto03:00 PM	15.11.2018 at 03:30 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 the 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 qualification criteria shall be considered as eligible bidder:

1. Agencies should have satisfactorily completed the works as mentioned below during the last 07 (Seven) years ending last day of the *September, 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 & 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. Certificate 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, failing which 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.**

A pre-bid meeting will be held on 08.11.2018 at 03:00 PM at CCM Section, IIT Kharagpur.

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

Copy to:

- 1) Registrar
- 2) Chairman, CCM
- 3) Vice Chairman (Civil) – CCM
- 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. 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 **06(Six) 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 **IITKharagpur** 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 **September, 2018**:
 - a) 03 similar works each costing not less than 40% of estimated cost for civil works, i.e. **Rs.11,95,954.00** or
 - b) 02 similar works each costing not less than 60% of estimated cost for civil works i.e. **Rs.17,93,932.00** or
 - c) 01 similar work costing not less than 80% of estimated cost, for civil works i.e. **Rs.23,91,909.00**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 & 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.

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.

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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 3yrs, 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.
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.

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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. 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.
19. 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).
20. 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).
21. 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.
22. 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.
23. 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.

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 **TWELVE** calendar months from the certified date of its completion.
9. The job is to be done as per CPWD specifications Volume I & II, as applicable and provisions made in relevant IS codes must be followed. Wherever these are silent, the construction and completion of works shall confirm 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. PRE-BID DISCUSSION:

One pre-bid discussion meeting will be held **on 08.11.2018 at IIT Kharagpur, CCM Section at 15:00hrs** for clarification of the queries, if any. The intending bidder(s) shall depute their authorized representatives for attending the pre-bid discussion. Intending bidder(s) are also requested to send their queries, if any, through e-mail (email id: skbiswas@adm.iitkgp.ac.in) / postal service **on or before 02.11.2018 by 15:00hrs.** positively. Institute will not be responsible for any postal delay.

16. 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 rejected.

17. 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.

18. Since the site is an operational department/hall, special arrangements to be made for working without disturbing students/faculty. Working hours may have to be rescheduled accordingly

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SCOPE OF WORK & TECHNICAL SPECIFICATION

The scope of work includes: Routine Civil Maintenance work in Academic Area Zone-I (Phase-2) at IIT Kharagpur.

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

SL. NO.	Description of Materials	List of Manufacturers
1	OPC/PPC/PSC	ACC, Birla, Ultratech, , Ambuja
2	White Cement	J.K. Cement,&Birla White
3	Wall Putty	JK / Birla / Sika
4	Lime	Janatacem, Asian Paint
5	Neeru	More (Peacock), Kamal
6	HYSD Bars (TMT Bars)	TISCO, SAIL, RINL
7	Structural Plates and Steel Sections	TISCO, SAIL, RINL, JINDAL
8	Steel light Sections(for grill railing,,door,window frame etc)	SRMB, Shyamsteel,Elegant
9	Pressed steel doors & fire resistant steel doors	Godrej, Windoors, Navair,Shakti,Strategic Building Systems &Kutty Flush Doors
10	Aluminium Extruded Sections	Jindal, Indal, Hindalco&Bhoruka
11	Hardware Fittings & fixtures	Garnish, Diamond, Hardwyn, Godrej, Hettich,Dorma,
12	Anodized Aluminium fittings	Allen / Metco / N.L.C.O.
13	SS Railing Sections	Ozone / D-Line / Jindal
14	Stainless steel D-handles	Godrej, Hettich, D-line, Dorma, Dorset, Ozone
15	Door Locks	Godrej, Dorma
16	Door Closer/Floor spring	Godrej, Ozone, Hettich, Dorma, Hardwyn
17	False Ceiling	Gyprock / Armstrong/SainGobain
18	Aluminium Cladding sheets	Alstrong, Alpolic, Alucobond, Alstone International, Aludecor Lamination
19	Colour Coated Steel / Zinc-alu alloy roofing sheets	TATA Bluescope,Jindal,Kirby,
20	Ceramic Tiles	H.R. Johnson (I) Ltd., Somany, Kajaria,Nitco
21	Vitrified Tiles	M/s H.R. Johnson, ., Somany, Kajaria,Nitco
22	Cement Based Paint	M/s Snowcem India Ltd. (Super snowcem, Sandex Matt), NITCO (Nitcocom) Paints, Hindustan Colour Chemical, Jayantcolour, Surfa coat, Terraco, Berger-Rabiacem, ApporvaBuildcare&Decocem
23	Distemper & Paints	Asian Paints, ICI Paints, , Berger Paints India Ltd.
24	Anti-corrosive water proofing paint with Aluminium finish	SIKA ,Shalimar
25	Waterproofing Compound, Sealants	Sunanda Chemicals, Mc-Bauchemie, FOSROC, Pidilite, Roffe, BASF, Sika
26	Adhesive for wood	Fevicol, Vamicol, Dunlop, Araldite
27	Water stops	M/s Omai Plastics, BaseconPask, Asian Engineering Products, Caprihans India Ltd., R.C. Enterprises, Kanta Polymers (Kanta flex) &Fixopan
28	APP Membrane	SIKA / PIDILITE / FOSROC / TIKIDAN
29	Expansion Joint Boards &Tarfelts	M/s Shalitek, S.T.P. Ltd., Lloyd Insulation, Tiki Tar Industries
30	Expansion Joint Filters	M/s Shalitek, S.T.P. Ltd., Lloyd Insulation & BASF Chemicals
31	Concrete Admixtures	Sunanda Chemicals, Mc-Bauchemie, FOSROC, Pidilite, Roffe, BASF
32	Bitumen (grade VG30)	IOCL
33	P.V.C. Shutters	Sintex / Raunaq / Duroplast
34	P.V.C. Pipes	Oriplast / Supreme / Finolex
35	P.V.C. Cistern	Parryware / Hindware / Cera

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36	P.VC. Closet Seat Cover	Parryware / Hindware / Cera / Prayag
37	P.V.C. Connector Pipe	Prayag
38	P.V.C. Ball Cock	Prayag
39	P.V.C. Bib Cock / Stop Cock/ Angular Stop Cock / Pillar Cock	Prayag
40	P.V.C. Waste & Sanitary Fittings	Prayag
41	Polycarbonate Sheets	GE / Macrolux / Polytechno / Danpalon
42	UPVC Doors / Windows	Fenesta, Aluplast, Lingel, Shuco, Winpro, Rehau
43	Ply Wood	Kitply, Greenply, Century Plywood
44	Flush Door	Green Ply, Century Ply, Kitply
45	Pre Laminated & Plain Particle Boards	NOVAPAN, Anchor
46	Glass for Doors / Windows	Modi Guard, Saint Gobain, Asahi
47	Plain Glass Mirror	M/s Modi Float Glass, , Saint Gobain, Asahi, Jaquar
48	Sanitary Wares	M/s Parryware, Hindware, Cera,
49	C.P. Brass Fittings & Fixtures	GEM, Techno, Lalsons KINGSTON, JAGUAR, Metro, ESSCO, MARC
50	C.P. Brass Coupling and Bottle Trap	ESSCO, GEM, Kingston, Jaguar, Metro, Marc
51	C.I. Flushing Cistern	Mis A-1 (J.S.), HJN, JAMCO, Neco, HIF
52	C.I. Pipe & Fittings	NECO / BIC / D.N.Sinha / AMC / ALC
53	Gun Metal Wheel Valve	Zoloto / Alto / Leader
54	C.P. BRASS Urinal Waste & Flush pipes	Orient, PARKO, Elite, Jaguar & Metro
55	Plastic Sheet & Cover	M/s Commander, Diplomat, Admiral, Patel, Champion, Parryware & Hindware
56	S.S. Sink	Diamond, Niraii, Parryware / Cera
57	G.I. Pipes	TATA, Jindal
58	G.I. Fittings	HB / R
59	G.M. Gate / Globe Valves	Nets, SANT, M/s Leader Valves, Zoloto
60	CPVC, UPVC, SWR Pipes	Finolex, Prince & Supreme
Electrical Items:		
1	FRLS wire 1.1 KV	Finolex/Havells/ RR KABEL
2	PVC pipe (MMS)	Precesion/POLYCAB
3	3-pole ceiling rose/ holder/ Call bell	Anchor/ SSK
4	Brass Compression Gland	ARUN Make
5	Al Lug	Dowell's
6	Cable	Finolex/Havells/POLYCAB/ KEI/RR KABEL ,
7	Luminaries (LED):	Philips/Havells/Wipro/Bajaj
8	GI Pipe	TATA/JINDAL
9	MCB & MCBDB(10ka)	Legrand/Hager/Siemens/L&T
10	ACB and MCCB	L&T/ Legrand/ Siemens/ ABB
11	LT panels(only TTA	L&T/ Legrand/ Siemens/ ABB
12	Cable Trey (only hot dip galvanised)	OBO / Legrand/ MK-Honeywell
13	Pump Sets	Crompton/Kirloskar/ GRUNDFOS
14	Modular Switch & Socked	MK wraparound plus / Legrand-Mynis / Crabtree Verona

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.

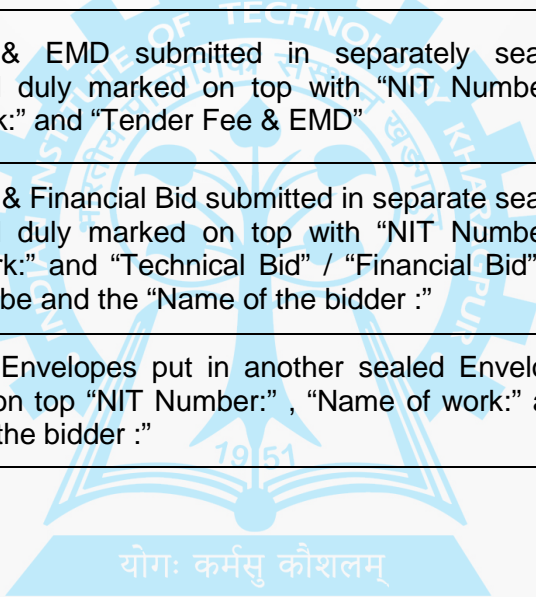
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Routine Civil Maintenance work in Academic Area Zone-I (Phase-2) at IIT Kharagpur."

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: _____

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Routine Civil Maintenance work in Academic Area Zone-I (Phase-2) at IIT Kharagpur."



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR, WEST BENGAL

TENDER DOCUMENT FOR

Routine Civil Maintenance work in Academic Area Zone-I (Phase-2) at IIT
Kharagpur.

PART – II: FINANCIAL BID

NOTICE INVITING TENDER NO. : SE(C)/IIT/TEN/2018-19/069

DATED : 24.10.2018

October 2018

Last Date & Time of Submission: 15.11.2018 upto 03:00 PM

CIVIL CONSTRUCTION & MAINTENANCE SECTION
IIT, KHARAGPUR,
WEST BENGAL

योग: कर्मसु कौशलम्

SUPERINTENDING ENGINEER (CIVIL)
IIT KHARAGPUR

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 in Academic Area Zone-I (Phase-2) at IIT Kharagpur."

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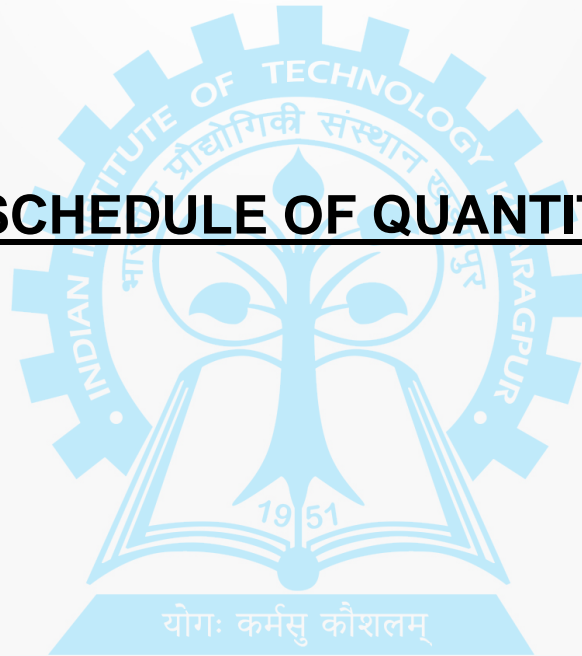


INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Routine Civil Maintenance work in Academic Area Zone-I (Phase-2) at IIT Kharagpur."



SCHEDULE OF QUANTITIES



CIVIL CONSTRUCTION AND MAINTENANCE SECTION

IIT KHARAGPUR

Name of Work: Routine civil maintenance work in Academic Area Zone -I (Phase-2) at IIT Kharagpur.

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				
	(i) Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix).	cum	2.00	1202.34	2,404.68
	(ii) Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix).	cum	3.00	741.81	2,225.43
2	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	5.00	1754.04	8,770.20
3	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer-in-charge.	sqm	2.00	603.91	1,207.82
4	Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.	kg	20.00	4.70	94.00
5	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	5.00	1016.27	5,081.35
6	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured).	nos	3.00	3.38	10.14
7	Dismantling doors, windows and clerestory windows (steel or wood) shutter including frame, chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead.				
	(i) Of area 3 sq. metres and below.	each	12.00	190.35	2,284.20
	(ii) Of area beyond 3 sq. metres.	each	13.00	260.96	3,392.48
8	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead.				
	(i) Of area 3 sq. metres and below.	each	20.00	73.86	1,477.20
	(ii) Of area beyond 3 sq. metres.	each	22.00	97.68	2,148.96
9	Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead.				
	(i) Of sectional area 40 square centimetres and above.	cum	2.00	2318.28	4,636.56
	(ii) Of sectional area below 40 square centimetres.	metre	5.00	9.29	46.45
10	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.			0.00	-
	(i) For thickness of tiles 10 mm to 25 mm.	sqm	60.00	38.05	2,283.00
	(ii) For thickness of tiles above 25 mm and up to 40 mm.	sqm	50.00	59.33	2,966.50
11	Demolishing dry brick pitching in floors, drains etc. including stacking serviceable material and disposal of unserviceable material within 50 metres lead :	cum	10.00	650.94	6,509.40
12	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	30.00	131.87	3,956.10
13	Dismantling and stacking within 50 metres lead, fencing posts or struts including all earth work and dismantling of concrete etc. in base of:R.C.C.	each	40.00	140.13	5,605.20
14	Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 metres lead.	kg	10.00	18.15	181.50
15	Dismantling precast concrete or stone slabs in walls, partition walls etc. including stacking within 50 metres lead.				

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
	(i) Thickness up to 40 mm.	sqm	5.00	144.65	723.25
	(ii) Thickness above 40 mm up to 75 mm.	sqm	5.00	216.70	1,083.50
16	Dismantling cement asbestos or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 metres lead.	sqm	200.00	29.30	5,860.00
17	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	500.00	27.01	13,505.00
18	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cum	200.00	145.37	29,074.00
19	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift upto 1.5 m, as directed by Engineer-in-Charge: All kinds of soil.	sqm	10.00	63.91	639.10
20	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	cum	5.00	200.66	1,003.30
21	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	cum	20.00	151.64	3,032.80
22	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	cum	5.00	1106.71	5,533.55
23	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. All kinds of soil	sqm	500.00	16.82	8,410.00
24	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared	sqm	900.00	8.68	7,812.00
25	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared.	sqm	1000.00	4.40	4,400.00
	(i) Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyrifos/ Lindane emulsifiable concentrate of 20%.	litre	20.00	224.24	4,484.80
26	(ii) Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) 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	50.00	159.06	7,953.00
	(iii) Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) : 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.	metre	100.00	22.97	2,297.00

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
	(iv) Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) Treatment at points of contact of wood work by chemical emulsion Chlorpyriphos/ 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	25.00	230.81	5,770.25
27	75 mm thick back filling for pitching including supplying of required materials and consolidation etc. complete with :Moorum.	sqm	100.00	67.35	6,735.00
28	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to any level.				
	(i)1:3:6 (1 Cement : 3 coarse sand (zone-III):6 graded stone aggregate 40 mm nominal size).	cum	2.00	5805.87	11,611.74
	(ii)1:2:4 (1 cement : 2 coarse sand (zone-III) :4 graded stone aggregate 20 mm nominal size).	cum	2.00	6610.68	13,221.36
29	(i) Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level ,1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size).	cum	2.00	7495.09	14,990.18
	(ii) Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) : 3 graded stone aggregate 20 mm nominal size).	cum	2.00	8617.12	17,234.24
30	Centering and shuttering including strutting, propping etc. and removal of form for all heights.				
	(i) Foundations, footings, bases of columns, etc. for mass concrete .	sqm	24.00	233.88	5,613.12
	(ii) Retaining walls, return walls, walls (any thickness) including attached pilasters, buttresses, plinth and string courses fillets, kerbs and steps etc.	sqm	25.00	456.55	11,413.75
	(iii) Suspended floors, roofs, landings, balconies and access platform,shelves (Cast in situ).	sqm	20.00	509.25	10,185.00
	(v) Lintels, beams, plinth beams, girders, bressumers and cantilevers.	sqm	10.00	413.50	4,135.00
	(vi) Columns, piers, abutments, pillars, posts and struts.	sqm	5.00	564.18	2,820.90
31	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto any level.Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	50.00	68.25	3,412.50
32	Providing and fixing up to floor five level precast cement concrete string or lacing courses, copings, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, stair cases, etc., including hoisting and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand), cost of required Centering complete.1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) : 3 graded stone aggregate 20mm nominal size).	cum	5.00	8166.90	40,834.50
33	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	sqm	10.00	543.08	5,430.80

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
34	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 Per Bag of 125gms of synthetic Polyester triangular fibre for 50 Kg cement used 50 Kg of as per directions of Engineer-in-Charge.	Per Bag of 50 Kg of cement	10.00	63.91	639.10
35	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	2.00	5730.01	11,460.02
36	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	2.00	6732.36	13,464.72
37	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in : cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	10.00	715.70	7,157.00
38	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.Cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	10.00	825.08	8,250.80
39	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	sqm	50.00	68.56	3,428.00
40	Brick work with clay fly ash F.P.S. (non modular) brick of class designation 7.5 in superstructure above plinth level up to floor five level in :Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	2.00	6353.95	12,707.90
41	Brick edging 7cm wide 11.4 cm deep to plinth protection with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	metre	30.00	47.27	1,418.10
42	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.Cement mortar 1 : 4 (1 cement : 4 coarse sand)	sqm	12.00	927.94	11,135.28
43	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.With cement mortar 1:4 (1cement: 4 coarse sand)	sqm	60.00	331.38	19,882.80
44	(i)12 mm cement plaster of mix :1:6 (1 cement: 6 sand)	sqm	20.00	193.37	3,867.40
	(ii)15 mm cement plaster on rough side of single or half brick wall of mix:1:6 (1 cement: 6 sand)	sqm	100.00	223.33	22,333.00
	(iii)20 mm cement plaster of mix :1:6 (1 cement: 6 sand)	sqm	100.00	266.02	26,602.00
45	Neat cement punning.	sqm	500.00	51.37	25,685.00
46	(i) 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	8.00	437.26	3,498.08
	(ii) 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	25.00	422.13	10,553.25
	(iii)Extra for making chequers of approved pattern on cement concrete floors, steps, landing, pavements etc.	sqm	100.00	44.44	4,444.00
47	(i)Providing and fixing glass strips in joints of terrazo/ cement concrete floors.40 mm wide and 4 mm thick.	metre	150.00	63.31	9,496.50

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
48	(i) 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 : Raj Nagar plain.	sqm	5.00	1836.10	9,180.50
	(ii) Extra for pre finished nosing to treads of steps of marble stone.	metre	5.00	369.31	1,846.55
	(ii) Extra for marble stone flooring in treads of steps and risers using single length up to 2.00 metre.	sqm	5.00	431.65	2,158.25
49	(i) 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	10.00	1396.55	13,965.50
	(ii) 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	10.00	1493.15	14,931.50
50	(i) 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	10.00	898.15	8,981.50
	(ii) Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as 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 pointing the joints with white cement and matching pigment etc., complete.	sqm	15.00	830.08	12,451.20
	(iii) Providing and fixing 1st quality ceramic glazed floor 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	15.00	796.14	11,942.10
	(iv) Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White , Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigments etc., complete.	sqm	10.00	901.89	9,018.90
	(i) 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	10.00	1349.88	13,498.80

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
51	(ii) Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joint with white cement & matching pigments etc. complete. Size of Tile 600x600 mm	sqm	10.00	1368.94	13,689.40
	(iii) Providing and laying Vitrified 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 brand & manufacturer, in all colours and shade, in skirting, riser of steps, 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	5.00	1496.04	7,480.20
	(iv) 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	7.00	1410.36	9,872.52
52	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	25.00	201.45	5,036.25
53	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.				
	(i) Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble, Area of slab over 0.50 sqm	sqm	1.00	2231.10	2,231.10
	(ii) Granite of any colour and shade, Area of slab over 0.50 sqm	sqm	2.00	3754.33	7,508.66
54	Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.	sqm	10.00	1.81	18.10
55	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	375.00	10.07	3,776.25
56	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	100.00	105.34	10,534.00
57	(i) Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :Water thinnable cement primer.	Sqm	200.00	44.56	8,912.00
	(ii) Applying one coat of exterior primer of approved brand and manufacture on wall surface @ 2.2 kg /10 sqm.	Sqm	300.00	32.68	9,804.00
58	Distemping with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.				
	(i) One coat.	Sqm	250.00	37.26	9,315.00
	(ii) Two coats.	Sqm	1000.00	59.87	59,870.00

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
59	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
	(i) One coat	Sqm	100.00	56.26	5,626.00
	(ii) Two coats.	Sqm	300.00	85.62	25,686.00
60	Finishing walls with Acrylic Smooth exterior paint of required shade:				
	(i) Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface	Sqm	200.00	83.15	16,630.00
	(ii) Old work (One or more coat applied @ 0.90 ltr/10 sqm).	Sqm	100.00	54.69	5,469.00
61	(i) Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. With ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre.	Sqm	900.00	46.37	41,733.00
	(ii) With ready mixed red oxide zinc chromatic on steel / iron works having VOC content less than 250 grams/ litre	Sqm	150.00	39.25	5,887.50
62	Painting with synthetic enamel paint, having VOC (Volatile Organic Compound) content less than 150 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
	(i) One coat	Sqm	20.00	59.99	1,199.80
	(ii) Two coats	Sqm	200.00	90.44	18,088.00
63	Removing existing treatment such as old terfelt etc thoroughly the surface using blower etc. and 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. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :3 mm thick.	Sqm	25.00	502.98	12,574.50
64	(i) Painting with aluminium paint of approved brand and manufacture to give an even shade. Two or more coats on new work.	sqm	35.00	82.42	2,884.70
	(ii) Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade :	Sqm	10.00	78.62	786.20
65	Polishing on wood work with ready made wax polish of approved brand and manufacture : Old work	sqm	60.00	56.62	3,397.20
66	Painting (one or more coats) on rain water, soil, waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour on old work : 100 mm diameter pipes.	metre	250.00	21.04	5,260.00
67	Lettering with black Japan paint of approved brand and manufacture	per letter per cm height	100.00	3.26	326.00
68	Renewing glass panes, with putty and nails wherever necessary including racking out the old putty.				
	a) Float glass panes of thickness 4 mm.	sqm	10.00	769.24	7,692.40
	b) Float glass panes of thickness 5.5 mm.	sqm	15.00	1083.56	16,253.40
69	Renewing glass panes, with wooden fillets wherever necessary.				
	a) Float glass panes of thickness 4 mm.	sqm	30.00	1028.15	30,844.50

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
	b) Float glass panes of thickness 5.5 mm.	sqm	20.00	1342.47	26,849.40
70	(i) Supplying and fixing new wooden fillets wherever necessary:Hollock wood fillets.	metre	25.00	41.24	1,031.00
	(ii) Renewal of old putty of glass panes (length).	metre	25.00	30.69	767.25
71	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	0.50	102968.12	51,484.06
72	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 Engineer-in-charge.Kiln seasoned and chemically treated hollock wood.				
	(i) 35 mm thick shutters.	sqm	15.00	2165.31	32,479.65
	(ii) 30 mm thick shutters.	sqm	10.00	1984.31	19,843.10
73	(i) Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick :Kiln seasoned and chemically treated hollock wood.	sqm	10.00	1729.74	17,297.40
	(ii) Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Fly proof stainless steel grade 304 wire gauge with 0.5 mm dia. wire and 1.4 mm wide aperture with matching wood beading.	sqm	10.00	1668.36	16,683.60
74	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws.Kiln seasoned and chemically treated hollock wood.30 mm thick.	sqm	10.00	2449.30	24,493.00
75	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: 30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	sqm	10.00	1880.90	18,809.00
76	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.Fixed to steel windows by welding.	kg	100.00	126.20	12,620.00
77	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	each	50.00	143.02	7,151.00
78	Providing and fixing ISI marked M.S. pressed butt hinges bright finished with necessary screws etc. complete :				
	(i) 100x58x1.90 mm.	each	50.00	33.04	1,652.00
	(ii) 75x47x1.70 mm.	each	25.00	26.47	661.75
79	Providing and fixing ISI marked oxidised M.S. pressed butt hinges with necessary screws etc. complete.				
	(i) 100x58x1.90 mm.	each	10.00	33.77	337.70
	(ii) 75x47x1.70 mm.	each	10.00	27.19	271.90

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
80	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete :250x16 mm.	each	10.00	171.30	1,713.00
81	Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete :				
	(i)150x10 mm	each	20.00	53.18	1,063.60
	(ii)100x10 mm	each	20.00	37.87	757.40
82	Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 with necessary screws etc. complete :100 mm.	each	40.00	27.31	1,092.40
83	Providing and fixing oxidised M.S. hasp and staple (safety type) conforming to IS : 363 with necessary screws etc. complete :90 mm.	each	40.00	20.26	810.40
84	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	80.00	32.38	2,590.40
85	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc. complete :				
	(i)75x47x1.80 mm	each	25.00	49.98	1,249.50
	(ii)50x37x1.50 mm	each	50.00	30.15	1,507.50
86	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete.Size 40 mm.	each	20.00	203.19	4,063.80
87	Providing and fixing chromium plated brass handles with necessary screws etc. complete:75 mm.	each	10.00	191.98	1,919.80
88	Providing and fixing chromium plated brass casement window fastener with necessary screws etc. complete.	each	10.00	150.74	1,507.40
89	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	each	100.00	103.53	10,353.00
90	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:75x45x3.2 mm.	each	50.00	74.83	3,741.50
91	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 :250x16 mm.	each	25.00	228.16	5,704.00
92	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.100x10 mm	each	100.00	59.33	5,933.00
93	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 :100 mm	each	200.00	54.39	10,878.00
94	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.Twin rubber stopper	each	75.00	45.82	3,436.50
95	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	25.00	25.93	648.25

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
96	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ± 1 mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1 mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineer-in-charge.				
	(i) Extruded section profile size 48x40 mm.	metre	50.00	261.44	13,072.00
	(ii) Extruded section profile size 42x50 mm.	metre	25.00	247.45	6,186.25
97	30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm (± 0.2 mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm (± 0.2 mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness . The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	sqm	10.00	2349.09	23,490.90
98	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality. 1.0 mm thick.	sqm	15.00	624.66	9,369.90
99	Providing and fixing sliding arrangement in racks/ cupboards/cabinets shutter by with stainless steel rollers to run inside C or E aluminium channel section (The payment of C or E channel shall be made separately)	each	20.00	15.13	302.60
100	Providing and fixing aluminum U beading of required size to Pre-laminated/ flush door shutter, including fixing etc. complete as per direction of Engineer-in-charge.	kg	5.00	527.94	2,639.70
101	Providing and fixing plain lining with necessary screws/nuts & bolts/ nails, including a coat of approved primer on one face, and fixed on wooden /steel frame work, complete as per direction of Engineer-incharge (Frame work shall be paid for separately).12mm thick commercial ply conforming to IS : 1328 BWR type.	sqm	5.00	1295.92	6,479.60
102	Providing and fixing plywood 4 mm thick, one side decorative veneer conforming to IS: 1328 (type-1), for plain lining / cladding with necessary screws, including priming coat on unexposed surface with :Decorative veneer facings of approved manufacture.	sqm	7.00	1242.92	8,700.44
103	Providing and fixing flat pressed 3 layer particle board medium density exterior grade (Grade I) or graded wood particle board IS : 3087 marked, to frame, backing or studding with screws etc. complete (Frames, backing or studding to be paid separately):				
	(i) 12 mm thick.	sqm	25.00	653.66	16,341.50
	(ii) 18 mm thick.	sqm	10.00	817.54	8,175.40
104	Providing and fixing 2nd class teak wood plain lining tongued and grooved, including wooden plugs complete with necessary screws and priming coat on unexposed surface.20 mm thick.	sqm	5.00	2925.45	14,627.25

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
105	Providing and fixing specified wood frame work consisting of battens 50x25 mm fixed with rawl plug and drilling necessary holes for rawl plug etc. including priming coat complete.Kiln seasoned and chemically treated hollock wood.	cum	0.50	119588.26	59,794.13
106	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).	sqm	100.00	89.66	8,966.00
107	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	sqm	15.00	441.18	6,617.70
108	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete :Kiln seasoned and chemically treated hollock wood,50x20 mm.	metre	50.00	142.72	7,136.00
109	Providing and fixing teak wood lipping of size 25x3 mm in pelmet etc.	metre	50.00	49.56	2,478.00
110	Providing and fixing 2nd class teak wood lipping/ moulded beading or taj beading of size 18X5 mm fixed with wooden adhesive of approved quality and screws/ nails on the edges of the Pre-laminated particle board as per direction of Engineer-in-charge.	metre	50.00	77.60	3,880.00
111	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineerin-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.Note: - This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done.	sqm	50.00	193.12	9,656.00
112	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	100.00	70.48	7,048.00
113	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	100.00	81.52	8,152.00
114	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	5.00	3461.23	17,306.15
115	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	150.00	136.99	20,548.50

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
116	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer. 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	100.00	89.30	8,930.00
117	Providing and fixing pressed steel door frames conforming to IS: 4351, manufactured from commercial mild steel sheet of 1.60 mm thickness, including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25 mm, or base ties of 1.60 mm, pressed mild steel welded or rigidly fixed together by mechanical means, including M.S. pressed butt hinges 2.5 mm thick with mortar guards, lock strike-plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge: Profile B. Fixing with adjustable lugs with split end tail to each jamb.	metre	25.00	410.43	10,260.75
118	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished welded type tubes.	kg	100.00	108.83	10,883.00
119	Welding by gas or electric plant including transportation of plant at site etc. complete.	cm	1500.00	3.44	5,160.00
120	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	kg	75.00	103.65	7,773.75
121	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer. M.S. tube.	kg	10.00	110.94	1,109.40
122	Providing and fixing angle iron frames for doors, windows and ventilators of mild steel Angle sections of size 35x35x5 mm, joints mitred and welded by angle iron 35x35x5 mm or 35x 5 mm flat pieces to the existing T-iron frame or to the wall with dash fastener, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer, all complete as per the direction of Engineer-In-charge.	kg	25.00	79.59	1,989.75
123	Providing and fixing flat pressed 3 layer medium density particle board or graded particle board (Grade I) IS: 3087 marked, in ceiling with necessary nails etc. complete (frame work to be paid separately): 12 mm thick.	Sqm	20.00	807.23	16,144.60
124	Providing and fixing plain multipurpose cement board (High pressure steam cured) with suitable screws for cement particle board in ceiling etc. complete (frame work to be paid separately). 6 mm thick Cement fiber board as per IS: 14862	Sqm	10.00	622.36	6,223.60
125	Providing and fixing M.S. holder bat clamps of approved design to C.I. or S.C.I. rain water pipes embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and cost of cutting holes and making good the walls etc. : 100 mm diameter.	each	26.00	201.81	5,247.06
126	Providing lead caulked joints to sand cast iron rain water pipes and fittings: 100 mm dia Pipe. 100 mm dia Pipe.	each	25.00	373.77	9,344.25

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
127	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.110 mm diameter.	metre	50.00	285.01	14,250.50
128	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.				
	(i) Single tee with door,110x110x110 mm.	each	15.00	218.93	3,283.95
	(ii) Single tee without door,110x110x110 mm.	each	15.00	202.11	3,031.65
	(iii) Bend 87.5°,110 mm bend.	each	20.00	136.39	2,727.80
	(iv) Shoe (Plain),110 mm Shoe.	each	20.00	118.18	2,363.60
129	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.110 mm.	each	25.00	218.75	5,468.75
130	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	each	20.00	49.32	986.40
131	Providing and fixing to the inlet mouth of rain water pipe PTMT (an Engineering Thermoplastic) grating square (Slit) 150 mm square with a height of 8 mm and weighing not less than 100 gms.	each	10.00	80.13	801.30
132	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	15.00	1193.24	17,898.60
133	Dismantling and stacking within 50 metres lead, fencing posts or struts including all earth work and dismantling of concrete etc. in base of:R.C.C.	each	25.00	140.13	3,503.25
134	Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 metres lead.	kg	25.00	18.15	453.75
135	Supplying at site,R.C.C. Standards post/ struts/rails/ pales of mix 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 12.5 mm nominal size) with 6mm TMT deformed bar wherever required as per direction of Engineer incharge (cost of earth works in excavation, concrete works in foundation to be paid separately).	cum	1.00	23846.13	23,846.13

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
136	Fencing with R.C.C. post placed at required distance, embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire weighing 9.38 kg per 100 metres (minimum), between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post,(cost of R.C.C. posts, struts, earth work and concrete to be paid for separately) :- Payment to be made per metre cost of total length of barbed wire used.With G.I. barbed wire.	metre	150.00	9.95	1,492.50
137	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.Made of G.I. wire of dia 4 mm.	sqm	20.00	677.35	13,547.00
138	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	each	25.00	212.72	5,318.00
139	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 any floor complete in all respect.	Sq.M.	100.00	59.59	5,959.00
140	Supplying fitting and fixing Black Stone slab used in Kitchen slab, alcove, wardrobe etc. laid and jointed with necessary adhesive Cement mortar (1:2) including grinding or polishing as per direction of Engineer-in-Charge in Ground Floor. Slab thickness 20 to 25 mm.in any floor complete in all respect.	Sqm	25.00	765.14	19,128.50
141	a) Polishing only of old marble or terrazo or mosaic work with oxalic acid powder using 33 gms/ sq.m. by machine.(Floor including dado) in any floor complete in all respect.	Sqm	250.00	45.29	11,322.50
	b) Washing and cleaning with oxalic acid powder using 33 gms./sq.m, Other than marble.(Floor including dado)in any floor complete in all respect.	Sqm	450.00	6.60	2,970.00
	c)Washing and cleaning with oxalic acid powder using 33 gms./sq.m, marble/terrazo/mosaic(Floor including dado) in any floor complete in all respect.	Sqm	450.00	8.30	3,735.00
142	Concrete Chowkat with rabbet (in sill of door or window) made with cement concrete (1:2:4) and finished with 15 mm. thick cement plaster (1:4) and neat cement punning complete: With rabbet on one side 75 mm X 50 mm or 75 mm X 75 mm. section (Cement 3.7Kg/Mtr.) in any floor complete in all respect.	Mtr	55.00	79.85	4,391.75
143	Scraping and removing greasy soot from walls ,wall tiles, tiles dado or ceiling of kitchen or similar smoke affected rooms and preparing the surface in any floor complete in all respect.	Sqm	150.00	13.11	1,966.50
144	Cleaning and removing paint mark from glass pane with spirit and removing strains etc in any floor complete in all respect (External & Internal).	Sqm	75.00	20.26	1,519.50
145	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 in any floor complete in all respect (External & Internal).	Sqm	200.00	104.88	20,976.00
146	Easing door and windows in any floor complete in all respect.	Each	450.00	20.26	9,117.00
147	MS or W.I. Ornamental grill of approved design and any weight joints continuously welded with M.S. W.I Flats and bars of windows, railing etc. fitted and fixed with necessary screws and lugs as per direction of engineer-in-charge in any floor complete in all respect.	Kg	75.00	83.97	6,297.75
148	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) in any floor complete in all respect.	Pair	50.00	50.06	2,503.00

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
149	Taking out M.S. 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. 12mm to 15mm thick in any floor complete in all respect.	Each	50.00	117.99	5,899.50
150	Supplying, fitting and fixing boiling water proof ply conforming to IS: 710-1977 bonded with phenol formaldehyde synthetic resin conforming to IS: 848-1974 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] in any floor complete in all respect.				
	b) 6mm	Sqm	20.00	1337.20	26,744.00
	d) 12mm	Sqm	10.00	2036.79	20,367.90
	f) 19mm	Sqm	1.00	2884.16	2,884.16
151	Labour for repairs to snapped line of Barbed wire by jointing snapped ends with links of new wire as necessary, stretching and refixing the line in taut condition (excluding the cost of new materials) at all necessary places complete in all respect.	Mtr.	150.00	1.73	259.50
152	Supplying 1.5 mm thick M.S. sheet fitted and fixed one or both faces of M.S./ W.I. gate etc. with point welding at not more than 150 mm apart complete in all respect as per design including cost of all labour and materials in any floor complete in all respect.	Sq.m	10.00	1164.39	11,643.90
153	Metallic magic eye of approved quality fitted and fixed complete in any floor complete in all respect.	Each	25.00	64.36	1,609.00
154	Mazdoor (Male) / Labour (Male) for necessary day to day work at necessary places as per direction of engineer in charge in any floor complete in all respect.	Each	25.00	291.99	7,299.75
155	(a) Stitching crack in brick wall by carefully cutting out face brick 125 mm. deep into the wall, cleaning the gap and filling up the same with precast cement concrete block carefully set in cement mortar (1:3) including mending good damages and finishing the surface to match with adjacent areas complete as per direction with reinforced cement concrete blocks (1:1½:3) with stone chips and nominal reinforcement Block size 250 x 125 x 75 mm.(Cement-1.85 Kg/No.) in any floor complete in all respect.	Each	50.00	125.14	6,257.00
	(b)Stitching crack in brick wall by carefully cutting out face brick 250 mm. long, 75 mm. thick and 125 mm deep into the wall,cleaning the gap and filling up the same with sound new brick, carefully set in cement mortar (1:3) including mending good damages and finishing the surface to match with adjacent areas complete as per direction.(Cement-1 Kg/No.) in any floor complete in all respect.	Each	60.00	47.67	2,860.20
	(c) Repairing crack in wall by cement grouting (1 : 2) including widening the crack on the surface (into V section) cleaning and packing the same with cement mortar (1 : 2) and finishing off to match with adjacent surface.(Cement-69 Kg/100 m) in any floor complete in all respect.	Mtr.	600.00	15.50	9,300.00
156	Supplying , fitting and fixing hinge cleat in position excluding the cost hinge and other fittings. in any floor complete in all respect.				
	a) with 50mm iron Butt-hinge,Local Sal.	Each	35.00	34.56	1,209.60
	b) with 75mm iron Butt-hinge,Local Sal.	Each	40.00	41.71	1,668.40
157	Cutting chase upto 125 x 150 mm. and subsequent mending of damages in brick wall [Cement-3.6 Kg/Mtr].	Mtr.	100.00	102.49	10,249.00
158	Cutting holes and subsequent mending good damages.				
	(i) In brick work [Cement-4.0 Kg/Mtr]	Mtr.	75.00	123.95	9,296.25
	(ii) In concrete work (plain or R.C.) [Cement- 3.0 Kg/Mtr].	Mtr.	75.00	156.13	11,709.75

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
159	Removing corroded worn out portion of reinforcement (when the area of bar is damaged by more than 25%) by cutting and replacing the same by a new plain round bar of requisite diameter by binding with required lap / welding with old bar, including cost of reinforcement, complete in all respect including removing unserviceable materials from site as per direction of the Engineer - in - charge. Note : Payment on weight (Kg.) of new reinforcement.	Kg	50.00	103.69	5,184.50
160	Supplying and laying Polythene Sheet (150gm / sq.m.) over damp proof course or below flooring or roof terracing or in foundation or in foundation trenches	Sq. M	200.00	28.60	5,720.00
161	Cement washing including cleaning and smoothening surface thoroughly (cement to be used @15 kg./100 sq.m. of surface for one coat and @25 kg./100 sq.m of surface for two coats):External surface (Ground floor), One coat.	Sq.M	150.00	10.91	1,636.50
162	Precise cutting of tile joints for cleaning existing cementitious grout and re-grouting the joints of tiles having joints of 3mm 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. Note: The application should be done through the authorised applicator of the contractor. Preferred Make: Latycrete, Asian Paints or Fosrock or or equivalent acceptable to IIT KGP				
	(i)Size of tile - 300mm x 300mm (Floor),filling depth 8 mm.	Sq.M.	25.00	431.00	10,775.00
	(ii)Size of tile - 400mm x 400mm (Floor),filling depth 8 mm.	Sq.M.	25.00	381.00	9,525.00
	(iii)Size of tile - 200mm x 300mm (Wall), filling depth 6 mm.	Sq.M.	5.00	417.00	2,085.00
	(iv) Size of tile - 200mm x 200mm (Wall), filling depth 6 mm.	Sq.M.	5.00	454.00	2,270.00
163	Supplying fitting and fixing of Hexagonal Chicken Mesh of approved quality with necessary nails etc.at all levels & in any floor complete in all respect. as per instruction of Engineer in charge.	sqm	75.00	30.00	2,250.00
164	Repairing steel window by welding including supplying all materials like hinges, legs, handle plates etc. whatever required for repairing with hire welding set different floor including scaffolding necessary for the work (including the cost of serviers connection charge for the welding) in any floor complete in all respect.	Each	25.00	220.00	5,500.00
165	Supplying, stacking, spreading & consolidating rubbish to a reuisite depth of 100mm at desir density as per specification Engg-in-Charge. Complete as per specification. (The payment will be made after deduction of 1/9th for the shrinkage) at all necessary places complete in all respect.	cum	35.00	182.00	6,370.00
166	Providing and applying pressure grouting operation with compressor pump and injecting cement slurry admixed with NSG compound and injecting each point till refusal. Removal of nozzles and sealing them with cement admixed with acrylic polymer in any floor complete in all respect (External & Internal).	Sqm	25.00	250.00	6,250.00

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
167	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	sqm	7.00	29.30	24,919.65
168	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	100.00	206.81	20,681.00
169	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	2.00	8407.66	16,815.32
170	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.				
171	Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make.	sqm	10.00	379.80	3,798.00
172	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	20.00	562.49	11,249.80
173	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	15.00	465.72	6,985.80
174	Painting with aluminium paint of approved brand and manufacture to give an even shade .				
	Two or more coats on new work	sqm	100.00	82.42	8,242.00
175	Renewal of old putty of glass panes (length)	metre	100.00	30.69	3,069.00
176	Refixing old glass panes with putty and nails	sqm	20.00	398.85	7,977.00
177	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.	25.00	136.99	3,424.75
178	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	12.00	499.79	5,997.48
179	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	12.00	468.37	5,620.44
180	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	50.00	25.93	1,296.50

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
181	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	20.00	428.34	8,566.80
	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	25.00	500.51	12,512.75
182	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	5.00	1045.03	5,225.15
183	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	sqm	10.00	894.17	8,941.70
	b) With float glass panes of 5.50 mm thickness	sqm	5.00	1210.66	6,053.30
	c) With float glass panes of 8 mm thickness	sqm	1.00	1391.49	1,391.49
184	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	5.00	2477.40	12,387.00
185	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	75.00	75.31	5,648.25
186	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	each	10.00	432.92	4,329.20
	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	2.00	5557.81	11,115.62

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
187	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	50.00	173.77	8,688.50
188	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	2.00	6464.41	12,928.82
189	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	3.00	3461.23	10,383.69
190	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	5.00	2220.54	11,102.70
191	Providing and fixing ball bearing for rolling shutters.	each	20.00	457.40	9,148.00
192	Extra for providing mechanical device chain and crank operation for operating rolling shutters.	sqm	10.00	873.13	8,731.30
193	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 galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.				

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
	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	8.00	1197.64	9,581.12
194	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	10.00	844.79	8,447.90
195	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	10.00	650.10	6,501.00
196	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 Engineerin- 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	10.00	663.73	6,637.30
197	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	20.00	434.67	8,693.40
	b) Gutter .(600 mm over all girth)	metre	10.00	1004.57	10,045.70
198	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 Engineerin- 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	10.00	1369.30	13,693.00
199	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	5.00	1193.24	5,966.20

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
	2 mm thick flat	sqm	5.00	1065.53	5,327.65
200	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.	100.00	59.59	5,959.00
201	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.	150.00	65.55	9,832.50
202	(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	15.00	688.86	10,332.90
203	(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	15.00	607.82	9,117.30
204	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	100.00	104.88	10,488.00
205	Single brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand.	Sqm	15.00	408.79	6,131.85
206	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	10.00	1984.35	19,843.50
	b) Medium (I.S.I. size 2)	Each	10.00	1628.00	16,280.00
207	c) Godrej Hydraulic door closer fitted and fixed complete. Medium type ,	Each	20.00	1984.35	39,687.00
208	Taking out shutter of door and window, dismantling by parts (For repair or replacement of damaged parts), reassembling and refitting and rehangng same with old fittings but with new screws as necessary (Where different parts of same shutter are renewed under different item,	Sqm	50.00	150.17	7,508.50
209	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	50.00	117.99	5,899.50
210	Easing door and windows.	Each	100.00	20.26	2,026.00
211	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	50.00	50.06	2,503.00
212	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	50.00	141.82	7,091.00
213	Taking out door and window shutters and rehangng the same with old fittings. With new iron screws.	Sqm	100.00	92.96	9,296.00
214	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	13.00	451.69	5,871.97
215	Easing and oiling, cleaning collapsible gate and repairing to locking arrangements.	Sqm	100.00	20.26	2,026.00

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
216	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	20.00	337.28	6,745.60
217	Renewing seam pipe for rolling shutter as per existing size and shape fitting, fixing complete.	Mtr	25.00	250.28	6,257.00
218	Renewing spring of rolling shutter as per existing size and shape including fitting fixing complete.	Each	15.00	725.81	10,887.15
219	Renewing side split pin for seam pipe for rolling shutter	Each	50.00	30.99	1,549.50
220	Oiling and greasing of rolling shutter and repair to in side lock.	Sqm	100.00	87.00	8,700.00
221	Renewing profile of rolling shutter including fitting & fixing complete as per existing size and shape.	Mtr	100.00	64.36	6,436.00
222	Easing and oiling, cleaning rolling shutters excluding repair to inside locks.	Sqm	20.00	14.30	286.00
223	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	10.00	1052.36	10,523.60
	ii) Coloured other than natural white or tinted blue	Sqm	10.00	1142.94	11,429.40
224	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	10.00	725.81	7,258.10
225	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	10.00	725.81	7,258.10
226	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 dial vertical M.S reinforcement and 6 mm dial binders @ 200 mm centres finished smooth etc. complete.	Each	5.00	533.93	2,669.65
227	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 dial. Of the hole 200 mm to 300 mm. Depth 450 mm to 500 mm.	Each	40.00	188.30	7,532.00
228	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	12.00	493.41	5,920.92
	(b) 75 mm. x 75 mm. x 8 g.	Sqm	15.00	399.25	5,988.75
229	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	100.00	32.99	3,299.00

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
230	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	8.00	881.93	7,055.44
	(ii) 9mm	Sqm	7.00	1225.17	8,576.19
231	<p>False-ceiling Work</p> <p>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.</p> <p>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).</p>	Sqm	25.00	418.32	10,458.00
232	<p>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.</p>	Sqm	25.00	406.40	10,160.00
233	<p>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.</p> <p>False ceiling with 12.5mm thick tapered edged Gypsum Plaster Board. (For Concealed False Ceiling Work)</p>	Sqm	25.00	487.45	12,186.25

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
234	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	25.00	462.42	11,560.50
235	Supply of Labour - Mazdoor (Male)	Each	10.00	321.19	3,211.90
236	Supply of Carpenter (ordinary)	Each	10.00	388.05	3,880.50
237	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	50.00		9,100.00
238	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	5.00	593.97	2,969.83
239	Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.	each	5.00	70.06	350.31
240	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	10.00	172.38	1,723.83
	b) 20 mm nominal outer dia Pipes	metre	10.00	217.00	2,170.02
	c) 25 mm nominal outer dia Pipes	metre	10.00	260.72	2,607.16
241	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				
242	a) 15 mm dia nominal bore	metre	10.00	224.78	2,247.80
	b) 20 mm dia nominal bore	metre	10.00	270.30	2,703.02
	c) 25 mm dia nominal bore	metre	10.00	298.88	2,988.82
243	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
	a) 25 mm nominal bore	each	5.00	516.37	2,581.83
	b) 20 mm nominal bore	each	5.00	478.20	2,391.00
244	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	2.00	4213.66	8,427.31

Sl. No.	Description of items	Unit	Qty	Rate	Total Amount (Rs.)
245	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	2.00	4122.61	8,245.22
246	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	1.00	7461.39	7,461.39
247	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	5.00	88.33	441.66
248	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	5.00	986.37	4,931.83
249	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	5.00	2771.82	13,859.11
250	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-incharge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	kg	500.00	569.67	284,835.00
Total (Rs.) =					2,989,886.26
Say Rs.					29,89,886.00

(Rupees Twenty Nine Lakhs Eighty Nine Thousand Eight Hundred and Eighty Six only)

I agree to execute the work at _____ % [in figure] ABOVE / BELOW / AT PAR (_____ percent) [in words] ABOVE / BELOW/AT PAR Department estimated amount/item rates.

Signature of the Contractor with Date & Seal

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Routine Civil Maintenance work in Academic Area Zone-I (Phase-2) 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.

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: _____
