

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Composite Repair and Renovation of vacated faculty quarters to expedite new faculty member's accommodation (Part-IV) at IIT Kharagpur."



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR, WEST BENGAL

TENDER DOCUMENT FOR

Composite Repair and Renovation of vacated faculty quarters to expedite new faculty member's accommodation (Part IV) at IIT Kharagpur.

PART – I: TECHNICAL BID

NOTICE INVITING TENDER NO. : SE(C)-IIT-TEN-2017-18/96
DATED : 23.01.2018

JANUARY 2018

Cost of Tender Document : Rs. 1000.00 (Non-Refundable)
Last Date & Time of Submission : 19.02.2018, upto 3:00 pm

CIVIL CONSTRUCTION & MAINTENANCE SECTION
IIT, KHARAGPUR,
WEST BENGAL

SUPERINTENDNG ENGINEER (CIVIL)

योग: कर्मसु कौशलम् IIT KHARAGPUR

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

Issued on:

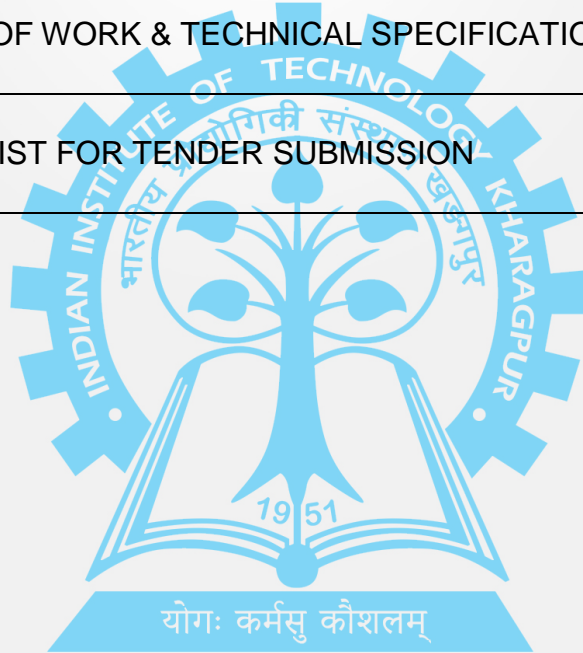
CCM Tender Sl. No. _____

Dated _____

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Composite Repair and Renovation of vacated faculty quarters to expedite new faculty member's accommodation (Part-IV) at IIT Kharagpur."

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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 bonafide agencies meeting the minimum qualification criteria for the following work:

Name of work	Estimated Amount (Rs.)	Earnest Money Deposit (Rs.)	Time for Completion	Start Date & Time of Tender Document Download / Bid Submission	End Date & Time of Tender Document Download / Bid Submission	Date & Time of opening of Technical Bid
Composite Repair and Renovation of vacated faculty quarters to expedite new Faculty Member's Accommodation (Part IV) at IIT Kharagpur.	25,00,000.00	50,000.00	12 (Twelve) Months	23.01.2018 03:30 PM	19.02.2018 upto 03:00 PM	19.02.2018 at 3:30 PM

Cost of Tender Paper Rs. 1,000.00 (Rupees One Thousand only), **NON REFUNDABLE**, in the form of DD only in favour of **IIT Kharagpur**, payable at **Kharagpur** (validity of DD should be at least 03 months) to be submitted along with the tenders (within Technical Bid). Tender without 'Cost of Tender Document' will be summarily rejected.

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

Brief Scope of Work

Repair & Renovation of vacant faculty quarters as and when available within short notice at IIT Kharagpur. The agency shall make himself ready to take up the work within short notice. The works are extremely time bound. The work comprises of -

1. **Civil Works (Major Component)**
2. **Electrical Works (Minor Component), approximately 15.0% of total works.**

Eligibility Criteria

Contractors who fulfill the following requirements 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 *December, 2017* :
 - i) Three (03) similar works each costing not less than 40% of estimated cost, or
 - ii) Two (02) similar works each costing not less than 60% of estimated cost, or
 - iii) One(01) similar work costing not less than 80% of estimated cost, executed under Central/State Government Department / Central/State Autonomous Body / Central/State Public Sector Undertaking.

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

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum calculated from the date of completion to last date of applications for tenders.

Completion certificate issued by Competent Authority will only be considered as credential. If the Completion certificate issued by Competent Authority does not reflect the type of work, then Final bill / Schedule of Quantity of the qualifying works also to be attached along with the Completion certificates. Certified from private individuals / organizations for whom such works have been executed shall not be accepted.

The bidders must associate himself, with agencies eligible to bid for the minor component (Electrical works) individually in line with Eligibility Criteria mentioned above (i.e., 3 similar Electrical works each costing not less than 6% of estimated cost, or 2 similar Electrical works each costing not less than 9% of estimated cost, or 1 similar Electrical work each costing not less than 12% of estimated cost). The contractor or the agency he associates with to carry out the electrical work (minor component) shall have to produce valid electrical license from the competent authority in his name. The validity of the license should remain for the whole tenure of the work. The same should be submitted along with the technical bid. The eligible bidders shall quote rates for all items of major component (Civil works) as well as for all items of minor (Electrical works) component of work.

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

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

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

Copy to:

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

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INSTRUCTIONS TO THE BIDDER

1. Attention of the tenderer is directed to the conditions of tender and general conditions of contract of IIT Kharagpur. Bidders who are not aware of the "General Conditions of Contract" of IIT Kharagpur are instructed to collect the same from Civil Construction and Maintenance Section, IIT Kharagpur and read the terms & conditions before submission of the tender.
2. The tenderer shall visit and inspect the site and obtain all information on his own responsibility and at own cost, which may be necessary for the purpose of quoting and submitting the tender. No excuse or ignorance as to site conditions and local information shall be accepted after awarding of the contract. All costs, charges & expenses that may be incurred in connection with the preparation of his tender shall be borne by him and the Institute accepts no liability whatsoever therefore. Failure by the tenderer to have done all the things, which in accordance with his condition he is deemed to have done shall not relieve the successful tenderer of the responsibility for satisfactory completion of the work as required. If there is any clarification required, the tenderer **shall submit the queries in writing 03 (Three) days before the last date & time of submission of the tender**, to the Civil Construction & Maintenance Section, IIT Kharagpur. Access to the site will be granted, if necessary, to the tendered by prior permission of the Engineer-in-charge.
3. The time for completion of work is **12 (Twelve) Months** & will be reckoned from the 7th day from the date of issue of Work Order or handing over of site, whichever is earlier.
4. EMD of requisite amount as mentioned in NIT/Corrigenda in favour of **IIT Kharagpur** in the form of **Demand Draft** only from any **Nationalized Bank** payable at **Kharagpur** should be enclosed within the **Technical Bid. Validity of DD should be at least 90 days** from date of publication of NIT. Any tender received without requisite Earnest Money in the form as mentioned above shall be summarily rejected and treated as cancelled. The Earnest Money received shall be refunded to the unsuccessful bidders without any interest upon executing the Contract Agreement by successful tenderer, **subject to the provisions of Clause 5 of ITB**. The Earnest Money Deposit (EMD) of successful tenderer shall be retained and converted as part of Security Deposit.
5. Earnest Money Deposit (EMD) will be forfeited in the following cases -
 - a. If the tenderer withdraws / modifies his tender during the period of Bid Validity.
 - b. If the tenderer does not accept the correction of arithmetical errors of his tender.
 - c. If the tenderer after award of work, does not start the work within the stipulated time period as per Letter of Acceptance / Work Order.

6. Eligibility Criteria

Contractors who fulfill the following requirements shall be considered as Eligible Bidder: Agencies should have satisfactorily completed during the last 07 (Seven) years ending last day of **the December, 2017**:

- a) 03 similar works each costing not less than 40% of estimated cost, i.e. Rs. 10,00,000.00 or
 - b) 02 similar works each costing not less than 60% of estimated cost, i.e. Rs. 15,00,000.00 or
 - c) 01 similar work costing not less than 80% of estimated cost, i.e. Rs. 20,00,000.00
- executed under Central/State Government Department or Central/State Autonomous Body or Central/State Public Sector Undertaking. **Completion certificate** issued by Competent Authority will only be considered as credential.

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

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum calculated from the date of completion to last date of applications for tenders.

Completion certificate issued by Competent Authority will only be considered as credential. If the Completion certificate issued by Competent Authority does not reflect the type of work, then Final bill / Schedule of Quantity of the qualifying works also to be attached along with the Completion certificates. Certificated from private individuals / organizations for whom such works have been executed shall not be accepted.

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The bidders must associate himself, with agencies eligible to bid for the minor component (Electrical works) individually in line with Eligibility Criteria mentioned above (i.e, 3 similar Electrical works each costing not less than 6% of estimated cost, or 2 similar Electrical works each costing not less than 9% of estimated cost, or 1 similar Electrical work each costing not less than 12% of estimated cost). The contractor or the agency he associates with to carry out the electrical work (minor component) shall have to produce valid electrical license from the competent authority in his name. The validity of the license should remain for the whole tenure of the work. The same should be submitted along with the technical bid. The eligible bidders shall quote rates for all items of major component (Civil works) as well as for all items of minor (Electrical works) component of work.

7. **Submission of Bid**

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

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

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

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

- i) Self certified copies of Credential documents fulfilling the minimum eligibility criteria as per Clause 6 above, i.e., Experience Certificates for completion of similar type of job within last seven years.
- ii) Original Tender Document – Part-I: Technical Bid duly Stamped & Signed in all pages.
- iii) Self certified copies of Statutory documents like **Trade License, PAN, IT Return, 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, 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 percentage/rates, Prices, Amounts and Sums quoted by the bidder shall be in Indian currency only. The language used throughout shall be English.

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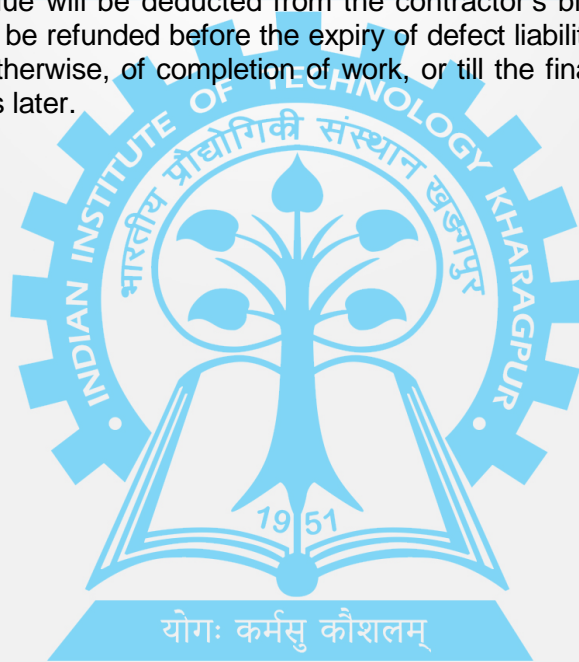
Tender Document for "Composite Repair and Renovation of vacated faculty quarters to expedite new faculty member's accommodation (Part-IV) at IIT Kharagpur."

11. All Percentage/Rates/Amounts/Sums shall have to be quoted in indelible ink and written both in figures and words. If the rate quoted in words does not tally with the rate quoted in figures then the rate which corresponds to the lesser amount shall be considered.
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 **90 days** from the date of opening of the bid. If before expiry of the validity period or issue of work order, whichever is earlier, the bidder amends / modifies / withdraws his bid, making unacceptable to the institute, then the Earnest Money Deposit shall be liable to forfeiture at the option of the Institute.
16. The Rates quoted by the tenderer should be inclusive of all taxes (GST) & duties, freight, cost for loading & unloading etc. and must hold good till the completion of work and shall not be subjected to escalation due to increase in local market rates of materials and labour. No claim on this account what so ever shall be entertained at any stage including the extended period, if any.
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 Ernest Money Deposit (EMD) and liabilities towards prosecution under appropriate law. In such cases the bidder / tenderer will be debarred from participation in future tendering process for next 03 (Three) years.
18. Should there be any doubt or obscurity as to the meaning of any of the tender documents or if any further information is required, the tenderer must address his enquiry in writing in duplicate to *Superintending Engineer, Civil Construction & Maintenance Section, Indian Institute of Technology Kharagpur - 721302, West Bengal*. Such enquiries must be submitted not later than **03 (Three)** working days before the last date fixed for submission of the tenders.
19. The sealed Bids shall be received by the Institute at Civil Construction and Maintenance Section not later than the time and date stipulated in the Notice Inviting Tender or Corrigenda otherwise. Tenders that are received after the date and time specified will not be considered.
20. The Technical Bid of tender will be opened on the specified date and time of opening at the Civil Construction & Maintenance Section, IIT Kharagpur in the presence of bidders / tenderers or their Authorised representatives (with proper authorization letter from Owner / Proprietor / Partner / CEO / MD / Director of the company mentioning Name, Address and designation of the person being authorised).
21. Date and time of opening of Price Bid will be informed to the Technically Qualified Bidders and will be opened at the Civil Construction & Maintenance Section, IIT Kharagpur in the presence of bidders / tenderers or their Authorised representatives (with proper authorization letter from Owner/Proprietor/Partner/CEO/MD/Director of the company mentioning Name, Address and designation of the person being authorised).
22. The Institute reserves the right to accept or reject any or all the offer including the lowest without assigning any reason. The Institute does not bind itself to accept the lowest offer.

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23. The successful tenderer, shall deposit an amount equal to 5% of the tendered and accepted value of the work as performance guarantee in the form of Demand Draft of a Scheduled Bank in favour of IIT Kharagpur payable at Kharagpur. The time allowed for submission of the performance guarantee shall be 15 days of receiving “Letter of Acceptance” (LOA). This period can be further extended as the written request of the contractor by the Engineer-in-charge for a maximum period ranging from 1 to 15 days with a late fee @ 1.00% per day of Performance Guarantee Amount. If the bidder still fails to deposit the performance guarantee within the extended time period, i.e. within 16th day to 30th day from the issue of letter of acceptance (LOA), his bid will be rejected and treated as cancelled and the entire Earnest Money Deposit shall be forfeited. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the Contractor, without any interest.
24. Standard Institute payment procedure shall be followed. A sum @ 5% of the gross amount of the bill shall be deducted as Security Deposit from the bill of the contractor. However, Earnest Money shall be adjusted first in the Security Deposit and the rest amount to complete a sum of 5% of gross bill value will be deducted from the contractor’s bill. The security deposit of the Contractor shall not be refunded before the expiry of defect liability period after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.



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ADDITIONAL CONDITIONS OF CONTRACT

1. The quantities indicated are approximate and may vary at the time of execution. The Institute will exercise absolute discretion for operating all or some items of the schedule.
2. Contractor has to remove all the debris from the site of execution and dispose them at suitable places shown by the Engineer or his authorised representative at site.
3. Cement used for the work should not be older than two months from the date of manufacture. The contractor should purchase the cement from authorised dealer and submit the test certificates/vouchers prior to execution of the work.
4. All temporary arrangements, staging, working platforms etc. is to be provided by the tenderer at his own expense to the satisfaction of the Engineer-in-Charge. The Institute will not however, be liable to pay any compensation due to accident, injury to the contractor's work men or any account what-so-ever.
5. Steel to be supplied and used should be from approved manufacturers. Steel from manufacturers other than approved make / re-rolled steel will not be acceptable. The consumption of steel will be regulated as per bar bending schedule and drawing to the contractor and/or as directed by Engineer-in-charge. Payment of reinforcement rod, will be made as per actual use including overlaps, crank, bending etc., as needed at work site, if any, as per approved drawing. Quantity will be calculated using standard weight per running metre. No wastage on any account is payable. Test certificate of steel should be submitted by the contractor. The contractor must submit vouchers for the steel purchased to the Engineer. All reinforcement used should be free from loose mill scale, loose rust, paint and oil coating etc.
6. All concreting works shall be Machine mixed and Machine vibrated and will have required levels of strength at the time of testing. Poorly executed concrete have to be demolished and repair will not be allowed.
7. The Institute will be at liberty to take samples during the course execution of work and get the same tested at Institute's laboratory to ascertain the quality conforming to relevant specification. The cost of sample and the charges for the testing will have to be borne by the contractor.
8. The contractor will have to maintain the work for **SIX** calendar months from the certified date of its completion.
9. The job is to be done as per WBPWD Building & Sanitary works specification for Building / Civil works and WBPWD Roads specification for Road Works, as applicable and provisions made in relevant IS codes must be followed. Wherever these are silent, the construction and completion of works shall conform to sound engineering practice as approved by the Engineer-In-Charge. In case of any dispute arises out of the interpretation of the above, the decision of the Engineer-In-Charge shall be final and binding to the contractor.
10. The bituminous road work shall be carried out by using bitumen of grade VG30 preferably from IOCL wherever 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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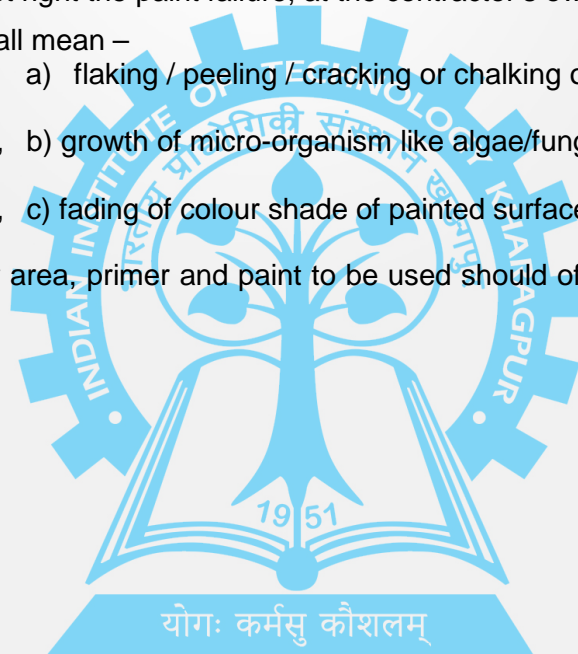
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14. For painting works-

- 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’ representative and the quality of application to be certified by the manufacturer and the same to be submitted to the department.
- iii. Surface preparation and procedure of paint application as suggested by the paint manufacturers to be followed properly and Checklist of paint (pro-forma will be provided by EIC during execution) to be jointly signed by the contractor, paint manufacturer.
- iv. External Painting works to be guaranteed by the paint manufacturer for a period of 03 years for Normal Acrylic Emulsion, 05 years for 100% Acrylic Emulsion and 07 years for super protective Acrylic Emulsion Paint. The warranty should cover replacing of paint to the extent of defect including cost of labour for re-application of coating as may be necessary to set right the paint failure, at the contractor’s own risk and cost.

Paint failure shall mean –

- a) flaking / peeling / cracking or chalking of paint film
 - or, b) growth of micro-organism like algae/fungus on the painted surface
 - or, c) fading of colour shade of painted surface
- v. For a particular area, primer and paint to be used should of same make approved by IIT Kharagpur.



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SCOPE OF WORK & TECHNICAL SPECIFICATION

The scope of work includes – Composite Repair & Renovation of vacated faculty quarters to expedite new faculty members’ accommodation (Part IV) at IIT Kharagpur.

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

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

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

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

योग: कर्मसु कौशलम्

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Tender Document for "Composite Repair and Renovation of vacated faculty quarters to expedite new faculty member's accommodation (Part-IV) at IIT Kharagpur."

CHECKLIST 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 with witness 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 "Composite Repair and Renovation of vacated faculty quarters to expedite new faculty member's accommodation (Part-IV) at IIT Kharagpur."



INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR, WEST BENGAL

TENDER DOCUMENT
FOR

Composite Repair and Renovation of vacated faculty quarters to expedite new faculty member's accommodation (Part IV) at IIT Kharagpur.

PART – II: FINANCIAL BID

NOTICE INVITING TENDER NO. : SE(C)-IIT-TEN-2017-18-96
DATED : 23.01.2018

JANUARY 2018

Last Date & Time of Submission : 19.02.2018, upto 3:00 pm

CIVIL CONSTRUCTION & MAINTENANCE SECTION
IIT, KHARAGPUR,
WEST BENGAL

योग: कर्मसु कौशलम्

SUPERINTENDING ENGINEER (CIVIL)
IIT KHARAGPUR

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

.....
.....
.....

Issued on

CCM Tender Sl. No. _____

Dated _____

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Composite Repair and Renovation of vacated faculty quarters to expedite new faculty member's accommodation (Part-IV) at IIT Kharagpur."

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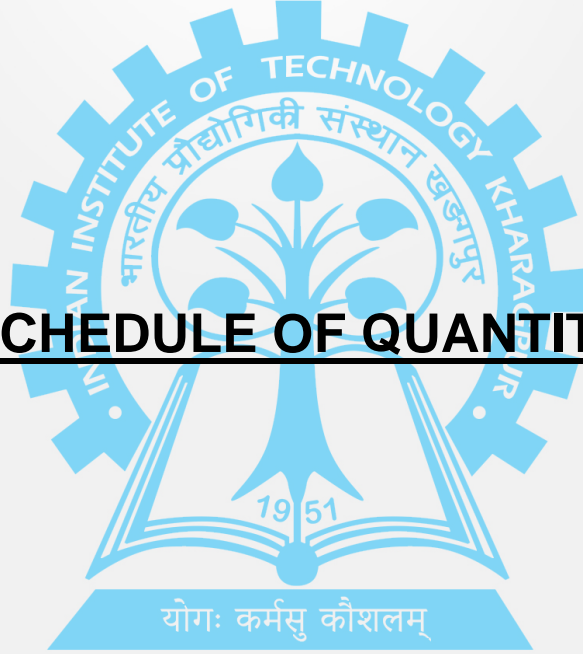


INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Composite Repair and Renovation of vacated faculty quarters to expedite new faculty member's accommodation (Part-IV) at IIT Kharagpur."



SCHEDULE OF QUANTITIES



CIVIL CONSTRUCTION AND MAINTENANCE SECTION
IIT KHARAGPUR

Name of Work:	Composite Repair & Renovation of vacated faculty quarters to expedite new faculty members' accommodation (Part IV) at IIT Kharagpur.			
SCHEDULE OF RATES				
Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
PART - A : CIVIL WORKS				
1	Clearing compound premises of shrubs, plants jungles etc. by cutting and removing as directed at all necessary places complete in all respect (Specific permission of Engineer-in-Charge prior to execution will be necessary). (Payment to be made on area cleared)	Sqm	R.O.	11.00
2	Uprooting and removing plants from the surface of walls parapet etc and making good damages. Repairing of damages to be paid separately at all necessary places complete in all respect.			
	(a) Small plant of girth of exposed stem upto 75 mm lift upto 6 metre.	Each	R.O.	51.00
	(b) Medium size plant of girth of exposed stem above 75 mm but not exceeding 150 mm lift upto 6 mtr.	Each	R.O.	61.00
3	Dismantling all types of masonry excepting cement concrete plain or reinforced, stacking serviceable materials at site and removing rubbish as directed within a lead of 75 m in any floor complete in all respect.	Cu.M.	R.O.	451.00
4	Dismantling all types of plain cement concrete works, stacking serviceable materials at site and removing rubbish as directed within a lead of 75 m. upto 150 mm. thick in any floor complete in all respect.	Cu.M.	R.O.	949.00
5	Dismantling R.C. floor, roof, beams etc. including cutting rods and removing rubbish as directed within a lead of 75 m. including stacking of steel bars in any floor complete in all respect.	Cu.M.	R.O.	1975.00
6	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.	R.O.	50.00
7	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or staking the spoils within a lead of 75 m as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete. Depth of excavation not exceeding 1,500 mm. at all necessary places complete in all respect.	Cum	R.O.	120.47
8	Filling in foundation or plinth by fine sand in layers not exceeding 150 mm as directed and consolidating the same by thorough saturation with water ramming complete including the cost of supply of sand. (Payment to be made on measurement of finished quantity) at all necessary places complete in all respect.	Cum	R.O.	533.06
9	Supplying , spreading and consolidating moorum with requisite depth including consolidating by power roller to proper grade and camber including watering, guarding, barricading and making necessary earthen bundh to protect the edges and pouring water, mending cracks by rolling etc. The rate includes the supply of moorum, carriage, loading, unloading and stacking at road side and spreading including all incidental charges of roller, cost of fuel & lubricants etc. all complete. (The payment will be made after deduction of 1/13th for the shrinkage) at all necessary places complete in all respect.	Cum	R.O.	445.64
10	Supplying, stacking, spreading & consolidating rubbish to a requisite 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	R.O.	182.00
11	Cement concrete with graded stone ballast (40 mm size excluding shuttering), Pakur Variety, 1:4:8 proportion in any floor complete in all respect.	Cum	R.O.	5369.00
12	Cement concrete with graded stone ballast (40 mm size excluding shuttering) [Pakur Variety] (1:3:6 proportion) in any floor complete in all respect.	Cum	R.O.	5757.00
13	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any, as per IS 456-2000. Pakur Variety. at all floor complete in all respect in any floor complete in all respect.	Cum	R.O.	6019.00
14	Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any, as per relevant IS codes. Pakur Variety in any floor complete in all respect.	Cum	R.O.	6759.00
15	Hire and labour charges for shuttering with centering and necessary staging upto 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams and columns, lintels curved or straight including fitting, fixing and striking out after completion of works.			
	(a) 25 mm to 30 mm thick wooden shuttering as per decision & direction of Engineer-in-Charge, in any floor complete in all respect.	Sqm	R.O.	343.00
	(b) 25 mm to 30 mm thick shuttering without staging in foundation	Sqm	R.O.	218.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
16	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars. Stirrups. Binders etc. initial straightening and removal of loose rust (if necessary). Cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge block annealed wire at every intersection. complete as per drawing and direction. Tor steel /Mild Steel SAIL/ TATA/RINL.in any floor complete in all respect including foundation.	Qntl.	R.O.	6178.70
17	R.C. shelves (1:1.5:3) either precast or cast in situ with stone chips and necessary reinforcement upto 1% (0.8% main and 0.2% distribution bars), shuttering etc. and 10 mm thick cement plaster (1:4) including neat cement finishing and cutting chase fitting and fixing in position. mending good damages as necessary complete.50 mm Thick panels.SAIL/ TATA/RINL.in any floor complete in all respect.	Sq.M	R.O.	1163.00
18	Brick work with 1st class bricks in cement mortar (1:6)			
	(i)In foundation and plinth	Cum	R.O.	5503.00
	(ii)In superstructure in any floor complete in all respect.	Cum	R.O.	5728.00
19	a) 125 mm. thick brick work with 1st class bricks in cement mortar (1:4) in any floor complete in all respect.	Sqm	R.O.	759.00
	b) Extra for using approved H.B. netting at 125 mm. thick brick work in every third layer in any floor complete in all respect.	Sqm	R.O.	46.00
20	Brick work with Fly Ash Bricks (230 X 110 X 70 size) set in cement sand mortar (1:6) including raking out joints, curing, scaffolding etc. in any floor complete in all respect.	Cum	R.O.	4907.00
21	100 mm thk brick work with Fly Ash Bricks set in cement sand mortar (1:4) including raking out joints, curing, scaffolding etc. in any floor complete in all respect.	Sqm	R.O.	569.00
22	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course, scaffolding /staging where necessary.[Including cost of chipping over concrete surface], External and Internal in any floor complete in all respect.			
	(a)20 mm thick plaster,With 1:6 cement mortar at all floor complete in all respect.	Sq.M	R.O.	166.00
	(b)15 mm thick plaster,With 1:6 cement mortar at all floor complete in all respect.	Sq.M	R.O.	144.00
	(c) 10 mm thick plaster,With 1:4 cement mortar at all floor complete in all respect.	Sq.M	R.O.	132.00
23	Stripping of worn out plaster and racking out joints of walls, celings etc.upto any height in any floor complete in all respect External and Internal including removing rubbish within a lead of 75 m as directed.	Sq.M	R.O.	19.00
24	Supplying and laying true to line and level vitrified tiles of approved brand (size not less than 600 mm X 600 mm X 10 mm thick) in floor, skirting etc. set in 20 mm sand cement mortar (1:4) and 2 mm thick cement slurry back side of tiles using cement @ 2.91Kg./sqM or using polymerised adhesive (6 mm thick layer applied directly over finished artificial stone floor/Mosaic etc without any backing course) laid after application slurry using 1.75 Kg of cement per sqM below mortar only, joints grouted with admixture of white cement and colouring pigment to match with colour of tiles / epoxy grout materials of approved make as directed and removal of wax coating of top surface of tiles with warm water and polishing the tiles using soft and dry cloth upto mirror finish complete including the cost of materials, labour and all other incidental charges complete true to the manufacturer's specification and direction of Engineer-in- Charge.(White cement, synthetic adhesive and grout material to be supplied by the contra conc. With application slurry @1.75 kg/ Sq.m, 20 mm sand cement mortar (1:4) & 2 mm thick cement slurry at back side of tiles, 0.2 kg/ Sq.m white cement for joint filling with pigment in any floor complete in all respect.			
	(a) Light Colour.	Sqm	R.O.	1455.00
	(b) Deep Colour & White	Sqm	R.O.	1955.00
25	Supplying, fitting & fixing granite slabs 15mm to 18 mm. thick with uniform texture & without decorative veins in columns, wall, fascia etc. with 15 mm thick [avg] cement mortar (1:2) including making suitable arrangements to hold the stones properly by brass / copper hooks including pointing in cement mortar (1:2) (1 white cement : 2 marble dust) with admixture of pigment matching the stone shades all complete as per direction of the Engineer-in-charge including cost of all materials, labours, scaffolding, staging ,curing and roughening of concrete surface complete. [Using cement slurry at back side of granite @ 4.4 kg/sq.m & white cement slurry for joint filling @ 1.8 kg/sq.m] in any floor complete in all respect.	Sqm	R.O.	2675.00
26	18 mm, to 22 mm. thick, kota stone slab set in 20 mm thick (avg) cement mortar (1:4) in floor, stair & lobby including pointing in cement slurry with admixture of pigment matching the stone shade. Including grinding & polishing as per direction of Engineer-in-charge to match with the existing work [Slurry for bedding @4.4 kg /sq.m and pointing @ 2.0 kg/sq.m and pointing @ 2.0 kg /sq.m] in any floor complete in all respect.	Sq.M	R.O.	1135.00
27	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	R.O.	725.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
28	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	R.O.	39.00
	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	R.O.	6.06
	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	R.O.	7.51
29	Supplying, fitting & fixing 1st quality Ceramic tiles in walls and floors to match with the existing work & 4 nos of key stones (10 mm) fixed with araldite at the back of each tile & finishing the joints with white cement mixed with colouring oxide if required to match the colour of tiles including roughening of concrete surface, if necessary or by synthetic adhesive & grout materials etc.in any floor complete in all respect.			
	(a) Floor : With sand cement mortar (1:4) 20 m thick & 2 mm thick cement slurry at back side of tiles using cement @ 2.91 Kg/Sq.m & joint filling using white cement slurry @ 0.20kg/Sq.m & joint filling using white cement slurry @ 0.20kg/Sq.m, Area of each tile upto 0.09 sq.m,Any coloured including white,Plain or Anti scared finish as per instruction of Engineer-in-charge.	Sqm	R.O.	778.00
	(b) Wall : With Sand Cement Mortar (1:3) 15 mm thick & 2 mm thick cement slurry at back side of tiles using cement @ 2.91 Kg/Sq.M & joint filling using white cement slurry @ 0.20 kg/Sq.M, Area of each tile upto 0.09 Sq.M, Coloured Decorative as per instruction of Engineer-in-charge.	Sqm	R.O.	840.00
	(C) Wall : With Sand Cement Mortar (1:3) 15 mm thick & 2 mm thick cement slurry at back side of tiles using cement @ 2.91 Kg/Sq.M & joint filling using white cement slurry @ 0.20 kg/Sq.M, Area of each tile upto 0.09 Sq.M,Coloured Plain including white as per instruction of Engineer-in-charge.	Sqm	R.O.	790.00
30	Artificial stone in floor, dado, staircase etc. with cement concrete (1:2:4) with stone chips, laid in panels as directed with tapping made with ordinary or with cement (as necessary) and marble dust in proportion (1:2) including smooth finishing and rounding off corners including ranking out joints or roughening of concrete surface and application of cement slurry before flooring works using cement @ 1.75 kg/sq.m all complete including all materials and labour.3 mm. thick topping (High polishing grinding on this item is not permitted with ordinary cement)in any floor complete in all respect.			
	(a) 20 mm thick	Sqm	R.O.	264.00
	(b) 25 mm thick	Sqm	R.O.	301.00
31	Neat cement punning about 1.5 mm thick in wall, dado, window, sills, floor, drain etc.in any floor complete in all respect.NOTE:Cement 0.152 cu.m per100 sq.m.	Sqm	R.O.	38.00
32	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	R.O.	76.00
33	(a) 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	R.O.	11.00
	(b) Scraping of moss, blisters etc.thoroughly from exterior surface of walls necessitating the use of scraper, wire brush etc.(Payment against this item will be made only when this has been done on the specific direction of the Engineer-in-charge) in any floor complete in all respect.	Sqm	R.O.	7.00
34	Removing old scales, blisters etc. of interior surface of walls,ceiling by scraping etc. and preparing smooth and even surface with rendering or cement mortar (1:2) (as necessary), to make the surface suitable for receiving distemper. (Payment against this item will be made only when this has been done on the specific direction of the Engineer-in-charge)in any floor complete in all respect.	Sqm	R.O.	10.39
35	(a)White washing including cleaning and smoothing surface thoroughly.in any floor complete in all respect : One coat	Sqm	R.O.	13.58
	(b)White washing including cleaning and smoothing surface thoroughly. in any floor complete in all respect. Two coats (to be done on specific instruction).	Sqm	R.O.	18.87
36	Colour washing with any shade with Stainers, as required including cleaning and smoothing surface thoroughly :Internal surface (in any floor complete in all respect.)			
	(a) One coat of colour wash.			
	(i) Other than yellow, pink.	Sqm	R.O.	15.25
	(ii) Yellow, pink.	Sqm	R.O.	15.37
37	(b) Two coats (on new works only).			
	(i) Other than yellow, pink.	Sqm	R.O.	21.39
	(ii) Yellow, pink.	Sqm	R.O.	21.57
37	Applying interior grade Acrylic Primer of approved quality and brand on plastered or concrete surface old or new surface to receive distemper / Acrylic emulsion paint including scraping and preparing the surface thoroughly, complete as per manufacturer's specification and as per direction of the EIC. One Coat , Water based interior grade Acrylic Primer.in any floor complete in all respect.	Sqm	R.O.	33.33
38	Acrylic Distemper to interior wall, ceiling without primer by using proper paint brush/paint roller as per direction of engineer-in-charge (as per manufacturer's specification) including cleaning and smoothing,scraping of surface.Two Coats.in any floor complete in all respect.	Sqm	R.O.	39.24

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
39	Applying plastic emulsion of approved make and brand by using proper paint brush/paint roller as per direction of engineer-in-charge on walls and ceiling including sand papering in immediate coats including putty (to be done under specific instruction). One coats in any floor complete in all respect.	Sqm	R.O.	30.00
40	Applying Acrylic emulsion paint of approved make and brand by using proper paint brush/paint roller as per direction of engineer-in-charge on walls and ceiling including sand papering in immediate coats including putty (to be done under specific instruction). Two coats Standard Quality.in any floor complete in all respect.	Sqm	R.O.	67.00
41	Rendering the surface of the wall and ceiling with white cement based wall putty of approved make and brand (1.5mm thick).in any floor complete in all respect.	Sqm	R.O.	122.00
42	Hire and labour charges for providing suitable scaffolding (bhara / ladder or any convenient device and removing the same as per direction of Engineer-In-Charge.in any floor complete in all respect.(External & Internal)	Sqm	R.O.	12.00
43	Applying Exterior grade Acrylic primer of approved quality and brand on plastered or concrete surface old or new surface to receive decorative textured(matt finish) or smooth finish acrylic exterior emulsion paint including scraping and preparing the surface throughly, complete as per manufacturer's specification and as per direction of the EIC.One Coat in any floor complete in all respect.	Sqm	R.O.	34.04
44	Protective and Decorative Acrylic exterior emulsion paint of approved quality by using proper paint brush/paint roller as per direction of engineer-in-charge, as per manufacturer's specification and as per direction of EIC to be applied over acrylic primer as required. The rate includes cost of material, labour, scaffolding and all incidental charges but excluding the cost of primer.(Two Coat), Normal Acrylic Emulsion in any floor complete in all respect.	Sqm	R.O.	73.00
45	Priming one coat on timber or plastered surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc.At all floor. Internal & External in any floor complete in all respect. including Cleaning and removing paint mark from glass pane with spirit and removing strains etc. after complete of the work.	Sqm	R.O.	41.00
46	Priming one coat on steel or other metal surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc. (This item is applicable to new work or old work when the original surface has been exposed by removal of oldpaint.) in any floor complete in all respect. Internal & External complete in all respect including Cleaning and removing paint mark from glass pane with spirit and removing strains etc. after complete of the work.	Sqm	R.O.	31.00
47	Painting with best quality synthetic enamel paint by using proper paint brush/paint roller as per direction of engineer-in-charge of approved make and brand including smoothening surface by sand papering etc. including using of approved putty(wood filler,wall putty or other as per necessary) etc. on the surface in necessary. On timber or plastered surface: With approved Quality & any shade as per direction of engineer-in-charge. At all floor. Internal & External in any floor complete in all respect. including Cleaning and removing paint mark from glass pane with spirit and removing strains etc. after complete of the work.			
	(a) One Coat	Sqm	R.O.	50.00
	(b) Two Coat	Sqm	R.O.	76.00
48	Painting with best quality synthetic enamel paint of approved make and brand by using proper paint brush/paint roller as per direction of engineer-in-chargeincluding smoothening surface by sand papering etc. including using of approved putty etc. on the surface in necessary. On steel or other metal surface :With approved Quality & any shade. in any floor complete in all respect. Internal & External including Cleaning and removing paint mark from glass pane with spirit and removing strains etc. after complete of the work.			
	(a) One Coat	Sqm	R.O.	48.00
	(b) Two Coat	Sqm	R.O.	75.00
49	Cleaning and removing paint mark from glass pane with spirit and removing strains etc in any floor complete in all respect (External & Internal).	Sqm	R.O.	17.00
50	Labour for Chipping of concrete surface before taking up Plastering work. in any floor complete in all respect (External & Internal).	Sqm	R.O.	21.00
51	Sealing cracks on roof, wall, chajja etc. with valamoid with similar plastic bitumen compound after cleaning all dust and dirt, then filling with Valamoid using the finger dipped in kerosin oil pressing tightly as fitting completely in level of adjoining areas. Rate includes supplying of materials and labour charges in any floor complete in all respect (External & Internal).	Kg	R.O.	65.11
52	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	R.O.	97.00
53	Providing and laying four course water proofing treatment with bitumen felt over roof consisting of 1st and 3rd courses of blow bitumen grade 30/40 of approved brand applied hot. @1.45 kg/sqm of area for each course, second course of roofing felt type 3 grade - I. (hessian base self finished bitumen felt) manufactured by STP/equivalent of approved brand Ltd. etc. and fourth and final course of stone grit 6 mm and down size or pee sized gravel spread at 6 cum. per sqm. including excluding grading complete with bitumen felt in any floor complete in all respect.	Sqm	R.O.	247.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
54	Removal of 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 4 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. 4 mm thick. in any floor complete in all respect.	Sqm	R.O.	341.80
55	Painting of Oxidised bitumen anti corrotive water proofing paint with aluminium finish over APP surface in any floor complete in all respect.	Sqm	R.O.	58.50
56	Painting roof surface with bitumen 30/40 grade @1.35 kg/sqm including cleaning roof surface and spreading medium sand @ 0.6 cum/ % sqm complete including the cost of sand and cost of bitumen and carriage and labour charges in any floor complete in all respect.	Sqm	R.O.	96.56
57	Making necessary holes on the base slab and walls using drill machine and fixing 12mm dia. threaded nozzle of required length at a spacing of 1 Mtr C/C.in any floor complete in all respect (External & Internal).	Sqm	R.O.	8.40
58	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	R.O.	250.00
59	Supplying best Indian sheet glass panes set in putty or fitted and fixed with teak wood beads and nails at all floors in all type (steel,aluminium,wood etc.) of door,window,Ventilator, louver etc.complete as per direction of engineer-in-charge in any floor complete in all respect (External & Internal).			
	a) 3 mm thick (weighing 7.4 kg/sq.m)	Sqm	R.O.	544.00
	b) 4mm thick	Sqm	R.O.	615.00
60	Renewing worn out putty of glass panes in any floor complete in all respect (External & Internal).			
	(a) Panes not exceeding 0.2 Sq.m	Each	R.O.	35.00
	(b) Panes exceeding 0.2 Sq.m but not exceeding 0.5 Sq.m	Each	R.O.	53.00
61	Supplying, fitting & fixing or renewing (taking out the old and refixing the new) Iron hasp bolt of approved quality (oxidised) with 16mm dia rod with centre bolt and round fitting. 300mm long in any floor complete in all respect	Each	R.O.	193.00
62	Supplying, fitting & fixing or renewing (taking out the old and refixing the new) Iron socket bolt of approved quality in any floor complete in all respect.			
	(a) 100mm long x 10mm dial bolt.	Each	R.O.	45.00
	(b) 150mm long x 10mm dial bolt.	Each	R.O.	71.00
	(c) 300mm long x 10mm dial bolt.	Each	R.O.	109.00
63	Supplying or renewing (taking out the old and refixing the new) Iron catch hook of approved quality fitted and fixed to shutter and chowkat. 6mm dial X 100 mm long in any floor complete in all respect.	Each	R.O.	40.00
64	(a)Supplying, fitting & fixing or renewing (taking out the old and refixing the new) Iron butt hinges of approved quality with steel screws, with ISI mark in any floor complete in all respect.			
	(i) 100mm x 50 mm x 1.25mm	Each	R.O.	48.00
	(ii) 75mm x 40mm x 1.12mm	Each	R.O.	31.00
	(b) Anodised aluminium butt hinges of approved quality manufactured from extruded section conforming to I.S. specification (I.S. 205/66) and fitted and fixed with cadmium plated screws:in any floor complete in all respect 75 x 45 x 2.5mm.	Each	R.O.	60.00
65	Supplying, fitting & fixing or renewing (taking out the old and refixing the new) Iron door handle or approved quality fitted and fixed complete:100mm X 5mm in any floor complete in all respect.	Each	R.O.	45.00
66	Supplying, fitting & fixing or renewing (taking out the old and refixing the new) anodised aluminium D-type handle of approved quality manufactured from extruded section conforming to I.S. specification (I.S. 230/72) With continuous plate base (Hexagonal /Round rod) in any floor complete in all respect.			
	(a) 100mm grip x 10mm dia. bolt.	Each	R.O.	79.00
	(b) 150mm grip x 10mm dia. bolt.	Each	R.O.	111.00
67	Supplying, fitting & fixing or renewing (taking out the old and refixing the new) Anodised aluminium barrel /tower /socket-bolt (full covered of approved manufactured from extruded section conforming to I.S. 204/74 with cadmium plated screws in any floor complete in all respect.			
	(a) 100mm long x 10mm dia. bolt..	Each	R.O.	61.00
	(b) 150mm long x 10mm dia. bolt.	Each	R.O.	73.00
68	Supplying, fitting & fixing or renewing (taking out the old and refixing the new) Anodised aluminium Aldrop /Sliding boots of approved quality manufactured from extruded section conforming to I.S specification (I.S. 2681/66) fitted and fixed complete. 250mm long x 16mm dia. bolt in any floor complete in all respect.	Each	R.O.	270.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
69	Supplying , fitting and fixing or renewing (taking out the old and refixing the new) approved quality Door Stopper in any floor complete in all respect.			
	(a) Door stopper (Anodised aluminium)	Each	R.O.	78.00
70	(b) Steel body foot-door holder.	Each	R.O.	75.00
	(a)Supplying , fitting and fixing or renewing (taking out the old and refixing the new) steel plated or oxidised peg stay of steel window frames including painting two coats with approved paint in any floor complete in all respect.	Each	R.O.	82.00
	(b) Supplying , fitting and fixing or renewing (taking out the old and refixing the new) 250mm long approved quality heavy type Aluminium window Peg Stay (Natural White) at steel window frames in any floor complete in all respect.	Each	R.O.	66.00
71	Supplying , fitting and fixing or renewing (taking out the old and refixing the new) two point steel plated or (oxidised) handle of steel doors and windows as directed including painting in any floor complete in all respect.	Each	R.O.	77.00
72	(a)Supplying, fitting and fixing M.S. clamps 40mm X 6mm, 125mm Length for door and window frame made of flat bent bar, end bifurcated with necessary screws etc. by cement concrete (1:2:4) as per direction including of concrete in any floor complete in all respect.	Each	R.O.	22.00
	(b)Supplying, fitting and fixing or Renewing M.S. clamps 40mm X 6mm, 125mm Length for door and window frame made of flat bent bar, end bifurcated with necessary screws etc. in cement concrete (1:2:4) including cutting of brick work/concrete work as per direction including of concrete in any floor complete in all respect.	Each	R.O.	40.00
73	(a)Supplying, Fitting & Fixing 30 mm thick Factory made solid Panel PVC Door Shutter consisting of outer frame made out of M.S. tubes of 19 gauge thickness and size 19 mmx19 mm for styles, top and bottom rails, M.S. frame shall have cost of steel primers of approved make and manufacture, M.S. frame covered with 5 mm th. heat moulded PVC "C" channel of size 30 mm th, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on either sides forming styles; and 5 mm th. 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm tapered in 45 degree on the inner side to form top & bottom rail and 115 mm wide PVC sheet out of which 75mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided either side of the panel with 10 mm (5 mmx2) th.,20 mm wide cross PVC sheet as gap insert for top rail and bottom rail. Paneling of 5 mm th. both side PVC sheet to be fitted in the M.S. frame welded/sealed to the styles & rails with 7 mm (5 mm+2 mm) th.x15 mm wide PVC sheet beading on inner side and joined together with solvent cement adhesive. An additional 5 mm th. PVC strip of 20 mm which is to be stuck on the interior side of the "C" channel using PVC solvent adhesive etc. complete excluding all necessary hardwares as per direction of Engineer-in-Charge.in any floor complete in all respect.	Sq.m	R.O.	2277.00
	(b) Supplying fitting and fixing P.V.C.door shutter of approved quality & shade in position, the style & rail of the P.V.C. Door shutter will be made of rigid P.V.C multicavity hollow chamber of suitable size and section with 2.0mm (\pm 0.2 mm) wall thickness, the section will have 2 nos. built in beads, horizontal & vertical section shall be fixed to each other by self tapping screws and 2 nos. of solid plastic or M.s tubular galvanized brackets of length 200mm X 80mm and other 100mm X 100mm both 1.20 mm in each corner of the shutter frame for placing hinges. Polymer based multicavity hollow section of 105mm X 37mm with 2.0mm (\pm 0.2 mm)wall thickness will be fitted in the middle as lock rail reinforced by solid polymer bar of 200mm long at ends & screws for both sides. the section frame will then be fitted in by prepanels of size 100mm X 20 mm with wall thickness 1.2mm (\pm 0.2 mm) and 2 nos of 6mm dia bright rod will be inserted horizontally with both side check and nut system and stretches where fixing of hinges /hasp bolt/tower bolt/door ring are required to be strong enough to with stand wear and tear. the rate is inclusive of cost of all materials, labour, and hire of tools and plants and appliances. Carriage of all			
	(a) 37 mm thick	Sqm	R.O.	2310.00
	(b) 30 mm thick	Sqm	R.O.	2149.00
74	(a) PVC door frame:-Supplying, Fitting & Fixing Factory made PVC door frame of size 50 mm X 47 mm with a wall thickness of 5 mm, made out of extruded 5 mm, PVC sheet miter cut at two corners and joined with two nos of 1.5 mm long brackets of 15 mm X 15 mm M.S. square tube. The two vertical door profiles are to be reinforced with 19 mm X 19 mm M.S. Sqare tube of 19 gauge, weather seal to be provided through out the frame. The door frame shall be fixed with the wall using 65/100 mm long M.S. Screws through the frame by using P.V.C fasteners. A minimum of 4 Nos of screws to be provided for each vertical member and minimum 2 Nos for horizontal member etc. complete as per Manufacturer's specification and direction of Engineer-in-Charge in any floor complete in all respect.	Mtr	R.O.	352.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
	(b) PVC door frame :-Supplying fitting and fixing in position approved P.V.C. door frame (Matt finish) made of extruded P.V.C. multichamber hollow section having dimensions 60mm x 50mm x 2mm (+/- 0.2mm), horizontal section will be joined with vertical section by galvanised steel screws after inserting two number steel brackets as reinforcement making suitable space for placing hinges, one steel tube 40mm x 20mm x 1.20 mm will be inserted on one full vertical side of the frame (hinge side) as reinforcement, the frame will then be fixed in the opening with the help of P.V.C. expandable fastner/wooden gutties and galvanised steel screws including cost of all materials and labour, hire charges of tools and appliances, carriage of all materials, taxes and all other incidental charges in any floor complete in all respect.	Mtr	R.O.	282.00
75	Wood work in door and window frame fitted and fixed in position complete including a protective coat of painting at the contact surface of the frame excluding cost of concrete, iron Butt Hinges and M.S. clamps. (The quantum should be corrected upto three decimals). Sal : Local in any floor complete in all respect.	Cum	R.O.	83652.00
76	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,in any floor complete in all respect.	Sqm	R.O.	121.00
77	(a)Taking out door and window shutters and rehangng the same with old fittings. With new iron screws in any floor complete in all respect.	Sqm	R.O.	78.00
	(b)Taking out door and window shutters and rehangng the same with old fittings. With old screws in any floor complete in all respect.	Sqm	R.O.	67.00
78	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, payment under item 73 will be made once only) in any floor complete in all respect.	Sqm	R.O.	128.00
79	Glazed shutters of doors window, fan light, clerestory windows etc. As per design (with ordinary glass of 7.4kg /sq.m. 3mm Thick) fitted with putty bad and teak wood bead and nails including fitting and fixing shutter in position but excluding the cost of hinges and other fittings, cost of glass, putty, wooded beads etc. which will be paid separately.35mm thick shutters. Sishu, Gamar, Champ, Badam, Bhola, Mogra, Hallak. in any floor complete in all respect.	Sqm	R.O.	2895.00
80	Styles and rails of wooden shutters fitted and fixed complete. (Payment to be made on area of new work only).35m Thick shutter. Sishu, Gamar, Champ, Badam, Bhola, Mogra, Hallak. in any floor complete in all respect.	Sqm	R.O.	2433.00
81	Supplying, fitting and fixing panel (Made of single plank) of door and window shutters to design as directed, 19mm Thick panel of 30cm to 45cm width with Sishu, Gamar, Champ, Badam, Bhola, Mogra, Hallak in any floor complete in all respect.	Sqm	R.O.	1223.00
82	Panel shutters of door and window, as per design (each panel consisting of single plank without joint). Including fitting and fixing the same in position but excluding the cost of hinge and other fittings. (In case of non-supply of single plank, panel rate of reduction of 20% will be made) 35mm thick shutters with 19mm thick panel of size 30 to 45 Cm. Champ, Hallok, Sisu, Badam in any floor complete in all respect.	Sqm	R.O.	3144.00
83	Z-batten shutters of door and window as per design havings tongued and groove-half lap jointed as per direction of the Engineer-in -charge including fitting and fixing shutter in position, but excluding the cost of hinges and other fittings. Shutter with 25mm thick planks, 19mm thick battens. Sishu, Gamar, Champ, Badam, Bhola, Morga, Hallak in any floor complete in all respect.	Sqm	R.O.	2918.00
84	Fly proof shutters as per design with galvanized netting 256 mesh per sq.inch/22 gauge of approved quality including fitting and fixing shutters in position but excluding the cost of hinges and other fittings,35 mm thick shutters. Sishu in any floor complete in all respect.	Sqm	R.O.	1039.50
85	Renewing of galvanized netting only of fly-proof shutters with new beads where necessary (netting to be approved quality) in any floor complete in all respect.	Sqm	R.O.	189.00
86	Rough dressed timber planks fitted and fixed with nut bolts excluding framework complete. 25 mm thick planks Sal Local in any floor complete in all respect.	Sqm	R.O.	1767.00
87	Easing door and windows in any floor complete in all respect.	Each	R.O.	17.00
88	Taking old suitable wooden shutter from departmental store and refixing the same after cutting, jointing & making to to requisite size with all necessary fittings at any level & place in any floor complete in all respect.	Each	R.O.	190.00
89	Supplying solid flush type doors of commercial quality, the timber frame consisting of top and bottom rails and side styles of well seasoned timber 65mm wide each and the entire frame fitted with 37.5mm wide battens places both ways in order to made the door of solid core and internal lipping with Garjan or similar wood veneers using phenol formaldehyde as glue etc. complete, including fitting, fixing the shutters in position but excluding the cost of hinges and other fittings in any floor complete in all respect.			
	(a) 35 mm thick shutters (single leaf)	Sqm	R.O.	3142.00
	(b) 32 mm thick shutters (single leaf)	Sqm	R.O.	2785.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
	Supplying, fitting and fixing windows and ventilators with or without integrated grills conforming to IS 1038-1975 and manufactured from rolled steel sections conforming to IS 7452-1974 with non-friction projecting type, box type hinges, glazing clips, lugs locking bracket, handle plate etc, including hoisting in position, straightening if required, fixing lugs in cement concrete (1:2:4) with stone chips 20 mm down cutting holes and mending good damages to match with existing surface complete in all respect excluding glazing.Flash butt welded windows and ventilators,No shop priming will be allowed to facilitate inspection of workmanship Without integrated grills in any floor complete in all respect.			
90	(a)Fixed type steel windows with or without ventilators(Fixed type,Top hung ,side hung ,Centre hung ventilators as per direction of engineer-in-charge) as per IS sizes with horizontal glazing bars.	Sqm	R.O.	1330.00
	(b)Openable steel windows with or without ventilators(Fixed type,Top hung ,side hung ,Centre hung ventilators as per direction of engineer-in-charge) as per IS sizes with side hung shutters and horizontal glazing bars.	Sqm	R.O.	1869.00
	(c)Two point nose steel handle including fitting and fixing.	Each	R.O.	41.00
	(d) Steel peg stay 300 mm long including fitting and fixing.	Each	R.O.	29.00
	(e) M.S. integrated grill as per approved design integrated with steel window or ventilator, joints continuously welded with M.S. flats and bars.	Kg.	R.O.	77.00
91	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	R.O.	220.00
92	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	R.O.	80.53
93	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	R.O.	43.00
94	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	R.O.	100.00
95	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.			
	a) 4mm	Sqm	R.O.	1067.00
	b) 6mm	Sqm	R.O.	1304.00
	c) 9mm	Sqm	R.O.	1504.00
	d) 12mm	Sqm	R.O.	2004.00
	e) 16mm	Sqm	R.O.	2369.00
	f) 19mm	Sqm	R.O.	2838.00
96	Supplying fitting, fixing decorative lamination conforming to IS:2046 : 1995 as per approved make, brand, finish and thickness with fitting, fixing the same on Particle/MDF / Ply Boards with recommended / approved adhesive with proper clipping the sides for better attachment as per direction of Engineer-in-charge. The rate includes the cost of labour, adhesive and all incidental charges thereof.Glassy/Matt/Suede excluding surface texture or metallic lustre. Thickness of laminate 1 mm in any floor complete in all respect.	Sqm	R.O.	787.00
97	Galvanised corrugated iron sheet work (excluding the supporting frame work) fitted and fixed with 10 mm dial J or L hook-bolts, limpet and bitumen washers and putty complete with 150 mm. end lap and one corrugation minimum side lap. (Payment to be made on area of finished work) (GCI sheet to be supplied by contractor) In Roof With 0.60 mm thick sheet in any floor complete in all respect.	Sq.M	R.O.	725.00
98	Asbestos corrugated (Trafford or similar approved quality) sheet (6 mm thick) work (excluding the supporting framework) fitted and fixed with 9.5 mm. dia. J or L hook-bolt and nuts limpet and bitumen washers and putty with 150 mm end lap & one corrugation minimum side lap complete. (Payment should be made on area of finished work) . In Roof in any floor complete in all respect.	Sqm	R.O.	549.00
99	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. 1.6mm +/- 0.2 mm thick sheet.(2.6Kg/Sq.m)in any floor complete in all respect.			
	a) Natural white or tinted blue colour	Sqm	R.O.	848.00
	b) Coloured other than natural white or tinted blue	Sqm	R.O.	907.00
100	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,in any floor complete in all respect.			
	a) Natural white or tinted blue colour	Mtr	R.O.	646.00
	b) Coloured other than natural white or tinted blue	Mtr	R.O.	721.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
101	Supplying at site or stackyard or as directed PCC (1:2:4) Fencing Post 215 cm 150 mm X 150 mm section at bottom 100 mm X 100 mm section at top with T-Base 300mm X 150 mm X 100 mm, having 4 nos 6 mm dia vertical M.S reinforcement and 6 mm dia binders @ 200 mm centres finished smooth etc.at all necessary places complete in all respect.	Each	R.O.	514.00
102	Fixing post of iron or precast concrete by digging hole in the ground (in all sorts of soil) and embedding the same by packing the hole with cement concrete (1:3:6) (with jhama khoa. For Purulia, Bankura and Darjeeling Hill by Pakur Variety, local black Hard Stone & Bazree respectively) and finishing the top surface to regular shape (as directed) with 15 cm cement plaster (1:6) complete, including the cost of concrete, plaster etc. but excluding the cost of the post: Average dia. Of the hole 200 mm to 300 mm. Depth 450 mm to 500 mm.at all necessary places complete in all respect.	Each	R.O.	191.00
103	Supplying, fitting galvanised 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 as necessary. 3 ply 12 gauge / 4 points at all necessary places complete in all respect.	Mtr	R.O.	27.95
104	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.	R.O.	1.47
105	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	R.O.	1102.00
106	Repairing 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 in any floor complete in all respect.	Sqm	R.O.	383.00
107	Easing and oiling, cleaning collapsible gate and repairing to locking arrangements in any floor complete in all respect.	Sqm	R.O.	17.00
108	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) in any floor complete in all respect.	Sqm	R.O.	286.00
109	Renewing seam pipe for rolling shutter as per existing size and shape fitting, fixing complete in any floor complete in all respect.	Mtr	R.O.	213.00
110	Renewing side split pin for seam pipe for rolling shutter in any floor complete in all respect.	Each	R.O.	26.00
111	Oiling and greasing of rolling shutter and repair to in side lock in any floor complete in all respect.	Sqm	R.O.	74.00
112	Renewing profile of rolling shutter including fitting & fixing as per existing size and shape in any floor complete in all respect.	Mtr	R.O.	55.00
113	Renewing spring of rolling shutter as per existing size and shape including fitting and fixing in any floor complete in all respect.	Each	R.O.	615.00
114	Taking out rain water down pipe in any floor complete in all respect.	Mtr	R.O.	9.04
115	Taking out rain water down pipes, removing chokages and prefixing the same in position including mending good damages at all Floor complete in all respect.(of taking out and refixing) in any floor complete in all respect.	Mtr	R.O.	12.00
116	Supplying,fitting & fixing UPVC pipes Fittings A Type and fittings conforming to IS:13592-1992 with all necessary clamps nails,including making holes in walls,floor etc.cutting trenches in any soil through masonry concrete structures etc if necessary and mending good damages including joining with jointing materials (Spun Yarn,Valamoid/Bitumen/M-Seal etc) complete.110 mm. Dia. in any floor complete in all respect.			
	(a)UPVC Pipes	Mtr.	R.O.	291.00
	(b)Plain Tee	Nos	R.O.	200.00
	(c)Bend 87.5 degree	Nos	R.O.	162.00
	(d)Shoe	Nos	R.O.	128.00
117	Supplying, fitting, fixing C.I Grating (Heavy type). Up to 100 mm Square or 100 mm Dia. in any floor complete in all respect.	Each	R.O.	80.00
118	Metallic magic eye of approved quality fitted and fixed complete in any floor complete in all respect.	Each	R.O.	61.00
119	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	R.O.	245.00
120	Supplying & laying interlocking designer paver block of any shade and of pproved quality as per IS: 1237-1980 laid in pattern as directed in pavement, footpath, driveway, etc including necessary underlay complete in all respect with all labour and material in any floor complete in all respect.			
	(a)25 mm thick Block over 25 mm thick (Avg) Cement mortar (1:3) & Cement Slurry @ 4.4 kg/Sq.m at back side of Block.			
	(i)Grey	Sq. M	R.O.	968.00
	(ii)Coloured Decorative	Sq. M	R.O.	1005.00
	(b)40 mm thick block over 150 mm medium sand bed including cost of sand.			

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
	(i) Grey	Sq. M	R.O.	935.00
	(ii) Coloured Decorative	Sq. M	R.O.	1049.00
	(c) 60 mm thick block over 150 mm medium sand bed including cost of sand but			
	(i) Grey	Sq. M	R.O.	1236.00
	(ii) Coloured Decorative	Sq. M	R.O.	1387.00
121	Removal of rubbish, earth etc. from the working site and disposal of the same beyond the compound, in conformity with the Municipal / Corporation Rules for such disposal, loading into truck and cleaning the site in all respect as per direction of Engineer in charge in any floor complete in all respect.	Cum	R.O.	168.00
122	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 strikeplate 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 in any floor complete in all respect.	metre	R.O.	377.70
123	Supplying fitting and fixing door and window frame with M.S. angle as per drawing & direction of required section. The holes for counter sunk machine screw & nuts will be such as to fit 8 to 10 mm Iron screw. The counter sunk nut to be welded. The nuts are to be welded after careful checking with screw. All welding spots should be properly filed or rounded smooth including cost of welding hinges for hinge cleats, lugs for hasp bolt, socket bolt etc. and necessary M.S. clamps of 25mm x 6mm flat 225mm long as per direction welded to the frame fitted and fixed in position excluding cost of concrete in any floor complete in all respect.	kg	R.O.	91.00
	(a) Supplying fitting and fixing or renewing (taking out the old and refixing the new) M.S. round or square bar grating after dismantling the parts and refixing of new or existing windows etc. in holes of window frame and with intermediate flat bar stiffener (with necessary holes for the grating bars and with the ends turned and fixed to timber frame with necessary screws) complete, as directed in any floor complete in all respect.	kg	R.O.	70.76
124	(b) Supplying fitting and fixing or renewing (taking out the old and refixing the new) M.S. works in framed gratings after dismantling the parts and refixing of new or existing window etc. made of round or square bars and frame work or M.S. flats (with the bars securely fixed to the flat bar frame) with or without intermediate flat bar stiffener and fixed with necessary screws, welding, cutting etc. as directed in any floor complete in all respect.	kg	R.O.	72.54
	(c) Supplying fitting and fixing only Ordinary grating bars after dismantling the parts and refixing of new or existing window etc. made of round or square M.S. rods in holes of window frames etc. as directed in any floor complete in all respect.	kg	R.O.	68.99
125	M.S. structural works in columns, beams etc. with simple rolled structural members (e.g. joists, angle, channel sections conforming to IS: 226, IS: 808 & SP (6)- 1964 connected to one another with bracket, gussets, cleats as per design, direction of Engineer-in-charge complete including cutting to requisite shape and length, fabrication with necessary bolting, metal arc welding conforming to IS: 816- 1956 & IS: 1995 using electrodes of approved make and brand conforming to IS: 814- 1957, haulage, hoisting and erection all complete. The rate includes the cost of rolled steel section, consumables such as electrodes, gas and hire charge of all tools and plants and labour required for the work including all incidental charges such as electricity charges, labour insurance charges etc. Payment to be made on the basis of calculated weight of structural members only in finished work as per IS specified weight. Payment for gusset, bracket, cleat, rivets, bolts and nuts may be made by adding the actual weight of such items with the weight of finished structural members or 7% of weight for finished structural members weighing not less than 22.5 Kg. / m. or 15 % of weight for finished structural members weighing less than 22.5 Kg. / m. may be			
	(a) For structural members of specified sections weighing less than 22.5 Kg./m	kg	R.O.	68.29
	(b) For Structural Works in Roof Trusses etc. using joists, channels and angles of specified section weighing less than 22.5 kg/ m	kg	R.O.	69.46
	(c) For built up sections / structural members of specified sections weighing not less than 22.5 Kg./m	kg	R.O.	70.98
126	M.S. structural works in roof trusses with tubular sections conforming to IS: 806- 1957 & IS: 1161- 1958 connected to one another with bracket, gusset cleats as per design, direction of Engineer-in-charge complete including cutting to requisite size, fabrication with necessary metal arc welding conforming to IS: 816- 1956 & IS: 9595 using electrodes of approved make and brand conforming to IS: 814- 1957, haulage, hoisting and erection all complete. The rate includes the cost of rolled steel section, consumables such as electrodes, gas and hire charge of all tools and plants and labour required for the work including all incidental charges such as electricity charges, labour insurance charges etc. Payment to be made on the basis of calculated weight of structural tubular members as specified in relevant IS code in finished work. Payment for gusset, bracket, cleat may be made by adding the actual weight of such items with weight of finished structural members in any floor complete in all respect.			
	(a) For trusses spanning up to 12.00 m	kg	R.O.	68.64

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
	(b) For trusses spanning above 12.00 m and up to 20 .00 m	kg	R.O.	70.96
	(c) For trusses spanning above 20.00 m and up to 30 .00m	kg	R.O.	72.50
127	Welding in M.S. structural work with gas or electric where necessary as per direction of engineer in charge in any floor complete in all respect.			
	(a) Tack weld.	point	R.O.	9.00
	(b) Continuous weld.	cm run	R.O.	9.00
128	M.S. works in brackets made from flats, angles, tees etc. to sizes specially bent, twisted, forged; making holes drilled and fitted to rafter of trusses with necessary bolts, nuts, washer or screws etc.where necessary as per direction of engineer in charge in any floor complete in all respect.	Kg	R.O.	83.45
129	Dismantling doors, windows and clerestory windows (steel or wood) shutter including frames, architrave, holdfasts etc. complete and stacking within 50 metres lead :Of area 3 sq. metres and below. in any floor complete in all respect.	each	R.O.	141.25
130	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. in any floor complete in all respect.	sqm	R.O.	21.85
131	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. In all floor.Of sectional area below 40 square centimetres. in any floor complete in all respect.	metre	R.O.	6.85
132	Wood work in frame other than door and window ,posts, post plates, rafters, battens, truss members, purlins etc. fitted and fixed (excluding the cost of bolts, paints, but including the cost of nails, screws etc.) in any floor complete in all respect.	Cu.M.	R.O.	83717.00
133	Dismantling tile work in walls laid in cement mortar including stacking material within 50 metres lead. in any floor complete in all respect.	sqm	R.O.	28.20
134	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead. in any floor complete in all respect. .	sqm	R.O.	97.95
135	(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	R.O.	113.00
	(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	R.O.	43.00
	(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.	R.O.	14.50
136	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	R.O.	30.00
137	Supplying dividing strip fitted and fixed with cement mortar (1:3) in mosaic or patent stone floor, dado etc. complete as per direction of the Engineer-in-charge.Glass - 3mm. Thick 20 mm. wide strip in any floor complete in all respect.	Mtr.	R.O.	18.00
138	Renewing 125mm long wooden buffer block of door and windows with Sal : Siliguri or equivalent PVC buffer block (standard size)approved quality as per direction of engineer in charge. in any floor complete in all respect.	Each	R.O.	63.00
139	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	R.O.	31.00
	b) with 75mm iron Butt-hinge,Local Sal.	Each	R.O.	38.00
140	(a)Anti-termite treatment to the outside of foundation with chemical emulsion by admixing chloropyrofos emulsifiable concentrate (1% concentration) with water by weight, drilling 12mm.dia holes in concrete or masonry apron at an interval of 300mm. to a depth, of 300mm or more as close to the plinth wall as possible and the chemical emulsion pumped into those holes to soak the soil below at a rate of 2.25 litres per linear metre complete as per specification laid down in para 4.3.1.1 of Code I.S.- 6313 (Part-III)-1981.	Mtr	R.O.	84.00
	(b)Anti-termite treatment to the soil under floor with chemical emulsion by admixing chloropyrofos emulsifiable concentrate (1% concentration) with water by weight including drilling vertically 12mm. dia holes at the junction of floor and wall at 300mm. interval to reach the soil below using hand operated pressure pump to squirt chemical emulsion into the pump to squirt chemical emulsion into the holes at the rate of one litre per hole. The holes shall be sealed after operation to match with the existing floor. The entire work is to be carried out as per specification laid down in para 4.3.1.4 of code I.S.- 6313 (Part-III)-1981.	Sq.M.	R.O.	94.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
	(c)Anti-termite treatment to the junction of wood work and masonry walls with chemical emulsion by admixing chloropyrofos emulsifiable concentrates (1% concentration) with water by weight including spraying at the points of contact with the adjoining masonry by drilling 6m. dia holes at a downward angle of about 45 degree at the junction of woodwork and masonry and squirting chemical emulsion into these holes at the rate of half litre per hole. The entire work is to be carried out as per specification of Code I.S.-6313 (Part-III)-1981. The shutters are to be sprayed with emulsion. on both sides. All wooden fixtures like almiraahs, racks etc. are also to be throughly sprayed with chemical emulsion in any floor complete in all respect.	Sq.M.	R.O.	62.00
	(d) Anti termite treatment to the top surface of the consolidated earth within plinth walls with chemical emulsion by admixing chloropyrofos emulsifiable concentrates (1% concentration) with water by weight at the rate of 5 Litres per sq. m. of the surface before sand bed or sub-grade is laid. Holes upto 50 mm. to 75 mm. deep at 150 mm. centre to centre both ways shall be made with 12 mm,diameter mild steel rod on the surface to facilitate saturation of the soil with the chemical emulsion. The work shall be carried out as per specification described in para 6.4 of code IS-6313 (part -II)1981. (Mode of measurement will be per Sq.m of plan area of plinth treated.) in any floor complete in all respect.	Sq.M.	R.O.	111.00
141	Supplying, fitting, fixing G.I chain link fencing 75 mm x 75 mm mesh 12 g wire to the R.C.C or wooden posts with galvanised hooks or staples etc. including additional top strengthening G.I.wire complete in all respect at all necessary places as per direction.	Sq.M.	R.O.	192.00
142	Providing and fixing magnetic catcher of approved quality in cupboard /ward robe shutters, including fixing with necessary screws etc. complete. in any floor complete in all respect.			
	(a)Triple strip vertical type	each	R.O.	28.60
	(b)Double strip (horizontal type)	each	R.O.	22.80
143	Supplying, fitting, fixing or renewing (taking out the old and refixing the new) Nickled Chromium Brass cupboard lock. in any floor complete in all respect.			
	(a) 40 mm size	each	R.O.	70.00
	(b) 50 mm size	each	R.O.	80.00
144	(a)Supplying, fitting, fixing or renewing (taking out the old and refixing the new) Oxidised mild steel hasps and staples (safety type) 90 mm. in any floor complete in all respect.	Each	R.O.	8.00
	(b)Supplying, fitting, fixing or renewing (taking out the old and refixing the new) Iron pad bolt (lock) of approved quality rod and handle 115mm x 10mm dia rod 65mm x 3mm plate. in any floor complete in all respect.	Each	R.O.	103.00
	(c)Supplying, fitting, fixing or renewing (taking out the old and refixing the new) Iron door ring of approved quality with nut and washer complete 50mm dia. in any floor complete in all respect.	Each	R.O.	19.00
145	Supplying, fitting and fixing Marble Slab/tile of 15 to 18 mm thickness in floor, lobby, stair, landing & treads etc. over 20 mm (av.) thck base of Cement mortar (1:2) laid with white cement slurry @ 4.4 kg/Sq.m before placing marble & jointed with white cement slurry @ 2.0 kg/Sq.m with necessary pigments including grinding and Granite polishing as per direction of Engineering -in -Charge in any floor complete in all respect.			
	(a)With Makrana plain pink / Adranga Pink / Garbh Gulabi / Udaypur pink / Udaypur Green / Black Bhaslana			
	(i)Area of each Slab/tile upto 0.3 sq.m.	Sq.M.	R.O.	1649.00
	(ii)Area of each Slab/tile exceeding 0.3 sq.m. but not exceeding 0.6 sq.m.	Sq.M.	R.O.	1920.00
	(b)With Chawk Dungi			
	(i)Area of each tile upto 0.3 sq.m.	Sq.M.	R.O.	1852.00
	(ii)Area of each tile exceeding 0.3sq.m. but not exceeding 0.6 sq.m.	Sq.M.	R.O.	2125.00
146	(a)Washing and cleaning with soap water and rubbing with oil cloth in all types of floor and dado in any floor complete in all respect.	Sq.M.	R.O.	7.00
	(b)Ready mix Wax polishing to wood work including preparing surface.On old wax polished surface including removal of old polish in any floor complete in all respect.	Sq.M.	R.O.	118.00
	(c)Grinding to existng marble / mosaic floor including remaining stone,if necessary, after cutting with manual labour / machine,where necessary in any floor complete in all respect.	Sq. M	R.O.	22.00
147	staging in any floor using approved MS stout props and thick hard wood planks of approved thickness for platform with required bracing including fitting, fixing and striking out after completion of works(Mode of measurement : area in plan x mean height of staging) complete in all respect.	Cu.M.	R.O.	62.00
148	Red oxide wash of approved shade including cleaning and smoothening surface thoroughly.One coat in any floor complete in all respect.	Sq.M	R.O.	25.97
149	Painting with ready mixed Black Japan of approved make and brand including smoothening surface One coat in any floor complete in all respect.			
	(a)One coat	Sq.M	R.O.	35.00
	(b)Two coats	Sq.M	R.O.	60.00
150	Painting block letters or digits in Black Japan or any approved paint as per direction in any floor complete in all respect.			
	(a) Size above 5 cm. and upto 7.5 cm.	Each	R.O.	11.00
	(b)Size above 7.5 cm. and upto 10 cm.	Each	R.O.	13.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
151	Providing and fixing 15 mm dia. specially threaded nozzles in holes up to a maximum depth of 4 ft with a grip pattern at a spacing not exceeding 1 mtr. c/c on the raft and foundation area at different layers of the soil including other areas not exceeding 1mtr along with injecting lime slurry admixed by not shrink grouting compound in addition to other soil stabilizing powder through the nozzles. Complete in all respect at any places as per the direction of EIC. (The rate is including boring of the holes and Mode of measurement - plan area only)	Sq.M.	R.O.	987.00
152	Precise cutting of tile joints for cleaning existing cementious 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)	Sq.M.	R.O.	431.00
	(ii)Size of tile - 400mm x 400mm (Floor)	Sq.M.	R.O.	381.00
	(iii)Size of tile - 200mm x 300mm (Wall)	Sq.M.	R.O.	417.00
	(iv) Size of tile - 200mm x 200mm (Wall)	Sq.M.	R.O.	454.00
Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
PART - B : SANITARY WORKS				
1	(i)Supplying, fitting and fixing Chromium plated round shower with revolving joint 100 mm dia with rubid cleaning system (Equivalent to Code No. 542(N) & Model - Tropical / Sumthing Special of ESSCO or similar brand).Complete in all respect in any floor.	each	R.O.	576.00
	(ii)Chromium plated shower arm 240 mm long (Equivalent to Code No. 536(A) & Model - Tropical / Sumthing Special of ESSCO or similar brand).Complete in all respect in any floor.	each	R.O.	391.00
2	Supplying, fitting and fixing gunmetal wheel valve of approved brand and make tested to 21 kg per sq. cm.(for water lines only). Complete in all respect in any floor.			
	(i)20 mm dia.	each	R.O.	738.00
	(ii)40 mm dia.	each	R.O.	2014.00
	(iii)50 mm dia.	each	R.O.	2905.00
3	(i) Supplying, fitting and fixing Chromium plated Bib Cock short body (Equivalent to Code No. 511 & Model - Tropical / Sumthing Special of ESSCO or similar brand).Complete in all respect in any floor.	each	R.O.	689.00
	(ii) Supplying, fitting and fixing Chromium plated Bib Cock long body with out wall flange with aerator (Equivalent to Code No. 512 & Model - Tropical / Sumthing Special of ESSCO or similar brand).Complete in all respect at all floor.Complete in all respect in any floor.	each	R.O.	762.00
	(iii)Supplying, fitting and fixing Chromium plated Stop Cock (Equivalent to Code No. 513(A) & 513(B) & Model - Tropical / Sumthing Special of ESSCO or similar brand).Complete in all respect in any floor.	each	R.O.	629.00
	(iv)Supplying, fitting and fixing Chromium plated angular Stop Cock with out wall flange (Equivalent to Code No. 5053 & Model - Florentine of Jaquar or similar brand).Complete in all respect in any floor.	each	R.O.	965.00
	(v)Supplying, fitting and fixing Chromium plated Bib Cock long body with wall flange with aerator (Equivalent to Code No. 512 & Model - Tropical / Sumthing Special of ESSCO or similar brand).Complete in all respect at all floor.Complete in all respect in any floor.	each	R.O.	843.00
	(vi)Supplying, fitting and fixing Chromium plated angular Stop Cock with wall flange (Equivalent to Code No. 5053 & Model - Florentine of Jaquar or similar brand).Complete in all respect in any floor.	each	R.O.	1046.00
	(vii)Supplying, fitting and fixing C.P. Wall Flange,Complete in all respect in any floor.	Each	R.O.	81.00
4	Supplying, fitting and fixing G.I. pipes of TATA make with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, longscrow, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps,Saddle Clamp including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required,joining materials and two coats of painting with approved paint in any position above ground. (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accesories, specials. Payment for painting will be made seperately)For Exposed Work,15 mm dia. medium quality.complete in all respect in any floor.	Mtr	R.O.	220.00
	(a)Supplying, fitting and fixing of PVC pipes(medium duty) conforming to ASTM D - m 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I)including fitted with holder bats clamps,Saddle Clamp cutting pipes, making threads, fitting, fixing etc. complete in all respect in any floor.			
	(i)15 mm dia.PVC pipe	metre	R.O.	65.00
	(ii)20 mm dia.PVC pipe	metre	R.O.	88.00
	(iii)40 mm dia.PVC pipe	metre	R.O.	219.00
	(iv)50 mm dia.PVC pipe	metre	R.O.	298.00
	(v)Socket 40 mm(Dia)	Each	R.O.	73.00
	(vi)Elbow40 mm(Dia)	Each	R.O.	45.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
	(vii)40 mm Long Bend (90 Degree)	Each	R.O.	145.00
5	(b)Supplying, fitting and fixing PVC pipes of approved make of (medium duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories , specials (GI Or PVC as per direction of engineer in charge) viz. socket, bend, tee, union, cross, elbo, nipple, longscrew, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads,fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials and two coats of painting with approved paint in any position above ground. (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accessories, specials. Payment for painting will be made separately)For Exposed Work complete in all respect in any floor.			
	(i)15 mm dia.PVC pipe	metre	R.O.	106.00
	(ii)20 mm dia.PVC pipe	metre	R.O.	136.00
	(iii)40 mm dia.PVC pipe	metre	R.O.	308.00
	(iv)50 mm dia.PVC pipe	metre	R.O.	406.00
	Note:Item 05/(a) or (b) will be operate as per direction & decision of engineer in charge and necessity.			
6	Supplying and fixing of High Density Poly-ethylene Pipe conforming to IS - 4984 - 1985 (Dia) [PE - 63]6 Kg / Sq.Cm. (Working Pressure)40 mm Exposed/Concealed Work including necessary accessories , specials viz.socket, bend, tee,elbo, reducing socket, reducing tee etc.fitted with holder bats clamps, including cutting pipes, making threads,fitting, fixing etc. complete in all respect in any floor (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accessories, specials.)	metre	R.O.	76.00
7	Labour for dismantling G.I. pipe with fittings.complete in all respect in any floor.			
	(i)15 mm dia.	metre	R.O.	6.00
	(ii)20 mm dia.	metre	R.O.	6.00
	(iii)40 mm dia.	metre	R.O.	8.00
	(iv)50 mm dia.	metre	R.O.	8.00
8	Supplying, fitting and fixing 10 litre P.V.C. low-down cistern conforming to I.S. specification with P.V.C. fittings complete,C.I. brackets including two coats of painting to bracket etc.complete in all respect in any floor.	Each	R.O.	1181.00
9	Supplying, fitting and fixing P.V.C. water storage tank of approved quality with closed top with lid (Black) - Multilayer complete in all respect.			
	(i)500 litre capacity	Each	R.O.	3076.00
	(ii)1000 litre capacity	Each	R.O.	6110.00
	(iii)1500 litre capacity	Each	R.O.	9343.00
	(iv)2000 litre capacity	Each	R.O.	12437.00
10	Labour for lowering plastic water storage tank and stacking in places as directed.complete in all respect.			
	(i)Upto 1500 litre capacity			
	(a) From 1st floor to G.L.	Each	R.O.	58.00
	(b) Extra for each additional story	Each	R.O.	29.00
	(ii) Above 1500 litre upto 5000 litre capacity			
	(a) From 1st story to G.L.	Each	R.O.	96.00
	(b) Extra for each additional story	Each	R.O.	44.00
11	Labour for punching hole in plastic water storage tank upto 50 mm dia.complete in all respect in any floor.	Each	R.O.	19.00
12	Labour for hoisting plastic water storage tank. complete in all respect.			
	(i) Upto 1500 litre capacity			
	(a) Upto 1st story from G.L.	Each	R.O.	97.00
	(b) Extra for each additional story	Each	R.O.	44.00
	(ii) Above 1500 litre upto 5000 litre capacity			
	(a) Upto 1st story from G.L.	Each	R.O.	155.00
	(b) Extra for each additional story	Each	R.O.	73.00
13	Supplying, fitting and fixing high pressure polythene ball cock of approved quality with polythene ball and aluminium lever complete for pipe of dia.:32 mm complete in all respect in any floor.	Each	R.O.	195.00
14	Supplying, fitting and fixing polythene ball of approved quality for pipe of dia.:32 mm.complete in all respect at all floor.complete in all respect in any floor.	Each	R.O.	154.00
15	Cleaning and disinfecting upto 2000 litre Water Tank including masonry reservoir.complete in all respect in any floor.	Each	R.O.	157.00
16	Cleaning and disinfecting above 2000 litre Water Tank including masonry reservoir.complete in all respect in any floor.	Cum	R.O.	89.00
17	Cleaning and removing mud upto 2000 litre Water Tank including masonry reservoir.complete in all respect in any floor.	Each	R.O.	111.00
18	Cleaning and removing mud above 2000 litre Water Tank including masonry reservoir.complete in all respect in any floor.	Cum	R.O.	68.00
	(a)Wash basin vitreous china of approved make (without fittings) supplied,fitted and fixed in position on 75mm X 75 mm X 75 mm wood blocks and C.I. brackets including two coats of painting of C.I. brackets.)complete in all respect at in any floor.			
	(i)450 mm X 300 mm size.	Each	R.O.	1374.00
	(ii)550 mm X 400 mm size.	Each	R.O.	1671.00
	(iii)630 mm X 450 mm size.	Each	R.O.	3040.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
	(iv)Angle back wash basin 400 mm X 400 mm.	Each	R.O.	1445.00
19	(b)Supplying, fitting and fixing white vitreous china best quality approved make wash basin with C.I. brackets on 75 mm X 75 mm wooden blocks, C.P. waste fittings of 32 mm dia., one approved quality brass C.P. pillar cock of 15 mm dia., C.P. chain with rubber plug of 30 mm dia., approved quality P.V.C. waste pipe with C.P. nut 32 mm dia., 900 mm long approved quality P.V.C. connection pipe with heavy brass C.P. nut including mending good all damages and painting the brackets with two coats of approved paint.complete in all respect in any floor.			
	(i)450 mm X 300 mm size.	each	R.O.	2207.00
	(ii)550 mm X 400 mm size.	each	R.O.	2504.00
	(iii)630 mm X 450 mm size.	each	R.O.	3873.00
	(iv)Angle back wash basin 400 mm X 400 mm.	each	R.O.	2278.00
	Note:Item 19(a) or (b) will be operate as per direction & decision of engineer in charge and necessity.			
20	Supplying, fitting and fixing pedestal of approved make for wash basin (white)complete in all respect in any floor.	Each	R.O.	1911.00
21	Supplying,fitting and fixing approved brand P.V.C. CONNECTOR white flexible, with both ends coupling with heavy brass C.P. nut, 15 mm dia. complete in all respect in any floor.			
	(i)450 mm long.	Each	R.O.	96.00
	(ii)600 mm long.	Each	R.O.	126.00
22	Supplying,fitting and fixing approved brand 32 mm dia.P.V.C. waste pipe,with PVC coupling at one end fitted with necessary clamps.complete in all respect in any floor.			
	(i)600 mm long	Each	R.O.	55.00
	(ii)750 mm long	Each	R.O.	69.00
	(iii)900 mm long	Each	R.O.	89.00
	(iv)1050 mm long.	Each	R.O.	107.00
23	(a)Supplying, fitting and fixing Waste fittings complete.C.P. over brass 32 mm.complete in all respect in any floor.	Each	R.O.	245.00
	(b)Supplying, fitting and fixing Waste fittings complete.C.P. over brass 40 mm.complete in all respect in any floor.	Each	R.O.	307.00
24	(a)Supplying, fitting and fixing C.I. bracket including two coats of painting.complete in all respect in any floor.			
	(i)Wash basin.	Each	R.O.	167.00
	(ii)Sink,Drain board	Each	R.O.	185.00
	(b)Supplying, fitting and fixing Aluminium brackets for Wash basin,Sink,Drain board etc.complete in all respect in any floor.	Each	R.O.	91.00
25	Supplying, fitting and fixing approved make.complete in all respect in any floor.			
	(i)CP Pillar Cock - 15 mm. (Code No. 5011 & Model - FLORENTINE of JAQUAR or equivalent).	Each	R.O.	1105.00
	(ii)CP Centre hole Basin mixture with regular spout without popup waste system with 450 mm long braided hoses. (Equivalent to Code No.5167(B) & Model - FLORENTINE of JAQUAR or similar brand).	Each	R.O.	3188.00
	(iii)CP Wall Mixture without spout but with provision for connection to Telephone Shower and exposed pipe for Overhead shower (Equivalent to Code No. 5215 & Model - FLORENTINE of JAQUAR or similar brand).	Each	R.O.	3188.00
26	Supplying, fitting and fixing C.P. Extension Pipe complete in all respect in any floor.	Each	R.O.	133.00
27	Dismantling wash basin with brackets with or without waste fittings.complete in all respect in any floor.	Each	R.O.	35.00
28	Dismantling pillar cock of wash basin.complete in all respect in any floor.	Each	R.O.	9.00
29	Fixing brackets for wash basin/ sink/ drain board/ cistern complete in all respect in any floor.	Each	R.O.	25.00
30	Cleaning wash basin/ sink with acid. Each complete in all respect in any floor.	Each	R.O.	16.00
31	Supplying, fitting & fixing Cast iron soil pipe only conforming to I.S. 3989 / 1970 and I.S. 1729/1964 with bobbins, nails,holder bats clamps,Saddle Clamp etc. including making holes in the wall, floor etc. and cutting trenches etc. in any floor through masonry concrete, if necessary, and mending good damages with necessary jointing materials and painting two coats to the exposed surface with approved paint complete. (Measurement will be made along the center line of the total pipe line in fitted condition including specials,payment for specials & Painting will however be paid seperately).With lead caulked joints.100 mm dia. (internal)complete in all respect in any floor.	metre	R.O.	858.00
32	Supplying, fitting & fixing Cast iron single branch equal with door conforming to I.S. 1729/1970 including holder bats clamps,Saddle Clamp,joining and painting two coats to the exposed surface with approved paint complete. (Payment of Painting will however be paid seperately).With lead caulked joints,100 mm dia.complete in all respect in any floor.	Each	R.O.	1035.00
33	Supplying, fitting & fixing Cast iron double branch equal with door conforming to I.S. 1729/1970 including holder bats clamps,Saddle Clamp jointing and painting two coats to the exposed surface with approved paint complete. (Payment of Painting will however be paid seperately).With lead caulked joints,100 mm dia.complete in all respect in any floor.	Each	R.O.	1223.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
34	Supplying, fitting & fixing H.C.I. bend with door conforming to I.S.S. including holder bats clamps,Saddle Clamp jointing complete and painting two coats to the exposed surface with approved paint complete. (Payment of Painting will however be paid seperately).100 mm dia.With lead caulked joints complete in all respect in any floor.	Each	R.O.	728.00
35	Supplying, fitting & fixing H.C.I. bend without door conforming to I.S.S. including holder bats clamps,Saddle Clamp jointing complete and painting two coats to the exposed surface with approved paint complete. (Payment of Painting will however be paid seperately).With lead caulked joints,100 mm dia.complete in all respect in any floor.	Each	R.O.	672.00
36	Supplying, fitting & fixing approved patent vent cowl I.C.I. conforming to I.S.S including holder bats clamps,Saddle Clamp and painting two coats to the exposed surface with approved paint complete. (Payment of Painting will however be paid seperately).100 mm dia.complete in all respect at necessary places,in any floor.	Each	R.O.	427.00
37	Supplying, fitting & fixing Aluminium/Steel domical grating as per direction of engineer-in-charge.100 mm complete in all respect in any floor.	Each	R.O.	57.00
38	Supplying,fitting and fixing cast iron 'P' or 'S' trap conforming to I.S. 3989 / 1970 and 1729 / 1964 including lead caulked joints and painting two coats to the exposed surface. (Painting to be paid seperately)complete in all respect in any floor.			
	(i)'P' Trap,100 mm	Each	R.O.	1094.00
	(ii)'S' Trap,100 mm	Each	R.O.	923.00
39	Supplying, fitting and fixing cast iron extension pipes with holder bats clamps,Saddle Clamp,down rod for using in Traps only (connector) conforming to I.S.3989/1970 and 1729/1964 including lead caulked joints complete and painting two coats to the exposed surface with approved paint complete. (Payment of Painting will however be paid seperately) complete in all respect in any floor.			
	(i)100 mm X 150 mm.	Each	R.O.	495.00
	(ii)100 mm X 225 mm.	Each	R.O.	554.00
	(iii)100 mm X 300 mm.	Each	R.O.	607.00
	(iv)100 mm X 375 mm.	Each	R.O.	644.00
	(v)100 mm X 450 mm.	Each	R.O.	679.00
	(vi)100 mm X 525 mm.	Each	R.O.	763.00
	(vii)100 mm X 600 mm.	Each	R.O.	792.00
40	Supplying, fitting and fixing with cement jointing (3:1) salt glazed stoneware pipe including excavation of earth upto 1.50 metre depth in all sorts of soil both mixed or unmixed and refilling (but excluding concreting at bottom and sides)complete in all respect at all necessary places,in any floor.			
	(i)300 mm	Mtr.	R.O.	1079.00
	(ii)225 mm	Mtr.	R.O.	604.00
	(iii)150 mm	Mtr.	R.O.	378.00
	(iv)100 mm	Mtr.	R.O.	330.00
41	Supplying, fitting and fixing with cement jointing (3:1) with jute gasket soaked in cement mortar.Stoneware bend complete in all respect at all necessary places,in any floor.			
	(i)300 mm	Each	R.O.	613.00
	(ii)225 mm	Each	R.O.	512.00
	(iii)150 mm	Each	R.O.	406.00
	(iv)100 mm	Each	R.O.	343.00
42	Supplying, fitting and fixing C.I. round grating.100 mm complete in all respect in any floor.	Each	R.O.	73.00
43	Cast Iron fittings for soil pipe line conforming to I.S. 1729/1970 including holder bats clamps,Saddle Clamp jointing and fitting and fixing in position and painting two coats to the exposed surface complete including cost of all materials & labour.(Payment of painting will be paid seperately.)complete in all respect in any floor.			
	(i)Single junction of 150 mm.X 100 mm. dia with door.With lead caulked joints	Each	R.O.	1661.00
	(ii)Double junction of 150 mm.dia X 100 mm.dia X 100 mm. with door With lead caulked joints	Each	R.O.	1889.00
	(iii)Double 'Y' junction of 150 mm.dia X 100 mm.dia X 100 mm.dia with door With lead caulked joints	Each	R.O.	1810.00
44	Dismantling H.C.I. pipe with fittings including melting lead caulked joints. 100 mm.complete in all respect in any floor.	metre	R.O.	65.00
45	Removing chokage of H.C.I. or S.W. pipe with split bamboo at all necessary places & in any floor.			
	(i)Underground	metre	R.O.	11.00
	(ii)Over ground	metre	R.O.	9.00
46	Supplying, fitting and fixing E.W.C. in white glazed vitreous chinaware of approved make complete in position with necessary bolts, nuts etc in any floor.			
	(i)With 'P' trap	Each	R.O.	1776.00
	(ii)With 'S' trap	Each	R.O.	1895.00
47	Supplying, fitting and fixing Anglo-Indian W.C. in white glazed vitreous china ware of approved make complete in position with necessary bolts,nuts etc in any floor.			
	(i)With 'P' trap	Each	R.O.	3940.00
	(ii)With 'S' trap	Each	R.O.	4178.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
	(iii)With 'P' trap (with vent)	Each	R.O.	3965.00
	(iv)With 'S' trap (with vent)	Each	R.O.	4203.00
48	Supplying, fitting and fixing Closet seat of approved make with lid and C.P.hinges, rubber buffer and brass screws complete in all respect in any floor.			
	(i)E.W.C Plastic (hallow type) black	Each	R.O.	353.00
	(ii)E.W.C Plastic (hallow type) white	Each	R.O.	446.00
	(iii)Anglo Indian Plastic (hallow type) black	Each	R.O.	436.00
	(iv)Anglo Indian Plastic (hallow type) white	Each	R.O.	572.00
49	Supplying, fitting and fixing bevelled edged mirror 5.5 mm thick silver red as per I.S. 3438 / 1965 together with brass C.P. hinges complete in all respect in any floor.			
	(i) 450 mm X 300 mm	Each	R.O.	467.00
	(ii) 600 mm X 450 mm	Each	R.O.	619.00
50	Supplying, fitting and fixing towel rail with two brackets.C.P. over brass complete in all respect in any floor.			
	(i) 25 mm dia. and 450 mm long	Each	R.O.	494.00
	(ii) 25 mm dia. and 600 mm long	Each	R.O.	554.00
51	Dismantling E.P. or Anglo-Indian W.C. complete in all respect in any floor.	Each	R.O.	45.00
52	Cleaning E.P. or Anglo-Indian W.C. with acid complete in all respect in any floor.	Each	R.O.	27.00
53	Refixing E.P. or Anglo-Indian W.C.complete in all respect in any floor.	Each	R.O.	89.00
54	Refixing wash basin with brackets with or without waste fittings complete in all respect in any floor.	Each	R.O.	71.00
55	Removing chokage of water closet complete in all respect in any floor.	Each	R.O.	26.00
56	Repairing C.P. hinges of W.C. seat complete in all respect in any floor.	Each	R.O.	83.00
57	Repairing W.C. seat with brass plate and screws complete in all respect in any floor.	set	R.O.	83.00
58	Polishing W.C. seat complete in all respect in any floor.	set	R.O.	39.00
59	Refixing flush pipe of water closet complete in all respect in any floor.	Each	R.O.	22.00
60	Supplying, fitting and fixing in position C.I. manhole/ pit cover with rim complete in all respect at all necessary places .			
	(a) Round			
	(i)450 mm X 100 mm X 21 kg (approx.)	each	R.O.	1972.00
	(ii)450 mm X 100 mm X 25 kg (approx.)	each	R.O.	2364.00
	(iii)450 mm X 100 mm X 50 kg (approx.)	each	R.O.	4130.00
	(iv)450 mm X 100 mm X 75 kg (approx.)	each	R.O.	6272.00
	(b)Square			
	(i)450 mm X 450 mm X 16 kg (approx.)	each	R.O.	1599.00
	(ii)450 mm X 450 mm X 50 kg (approx.)	each	R.O.	4130.00
	(iii)600 mm X 600 mm X 32 kg (approx.)	each	R.O.	3030.00
	(iv)600 mm X 600 mm X 50 kg (approx.)	each	R.O.	4130.00
	(c)Rectangular			
	(i)600 mm X 450 mm X 25 kg (approx.)	each	R.O.	2358.00
	(ii)600 mm X 450 mm X 32 kg (approx.)	each	R.O.	2831.00
	(iii)600 mm X 450 mm X 50 kg (approx.)	each	R.O.	4347.00
61	Dismantling & Refixing pit cover complete in all respect at all necessary places .	each	R.O.	35.00
62	Cleaning silt of inspection pit complete in all respect at all necessary places.	each	R.O.	155.00
63	Cleaning silt of master trap pit complete in all respect at all necessary places .	each	R.O.	1164.00
64	Making connection with the existing pit complete in all respect at all necessary places.	each	R.O.	89.00
65	Cutting hole through wall, roof or cornice and mending good all damages complete in all respect in any floor.	each	R.O.	69.00
66	Dismantling ball cock and refixing the same after repair including straightening lever and renewing split pin complete in all respect in any floor.			
	(i)32 mm	each	R.O.	45.00
	(ii)40 mm	each	R.O.	49.00
67	Supplying, fitting and fixing of G.I. pipes of TATA make complete in all respect in any floor including holder bats clamps,Saddle Clamp etc.			
	(a)15 mm dia,Medium quality.	metre	R.O.	161.00
	(b)20 mm dia,Medium quality.	metre	R.O.	192.00
	(c)40 mm dia,Medium quality,	metre	R.O.	347.00
68	Supplying, fitting and fixing of approved brand and make of galvanised iron socket with I.S.I. mark complete in all respect in any floor.			
	(i) 15 mm dia	each	R.O.	18.00
	(ii)20 mm dia.	each	R.O.	27.00
	(iii)40 mm dia.	each	R.O.	71.00
69	Supplying, fitting and fixing of approved brand and make of G.I. plug with I.S.I. mark complete in all respect in any floor.			
	(i) 15 mm	each	R.O.	12.00
	(ii)20 mm	each	R.O.	22.00
	(iii)40 mm	each	R.O.	65.00
70	Supplying, fitting and fixing of approved brand and make of G.I. reducing socket with I.S.I. mark complete in all respect in any floor.			
	(i)20 mm	each	R.O.	29.00
	(ii)40 mm	each	R.O.	79.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
71	Supplying, fitting and fixing of approved brand and make of G.I. bend with I.S.I. mark complete in all respect in any floor.			
	(i) 15 mm	each	R.O.	41.00
	(ii)20 mm	each	R.O.	62.00
72	Supplying, fitting and fixing of approved brand and make of G.I. plain tee with I.S.I. mark complete in all respect in any floor.			
	(i) 15 mm	each	R.O.	30.00
	(ii)20 mm	each	R.O.	49.00
73	Supplying, fitting and fixing of approved brand and make of G.I. reducing tee with I.S.I. mark complete in all respect in any floor.			
	(i) 20 mm X 15 mm	each	R.O.	53.00
	(ii)40 mm X 20 mm	each	R.O.	156.00
74	Supplying, fitting and fixing of approved brand and make of G.I. nipple standard 50 mm long with I.S.I. mark complete in all respect in any floor.			
	(i) 15 mm	each	R.O.	20.00
75	Supplying, fitting and fixing of long screw (150 mm long) of TATA make with sockets complete in all respect in any floor.			
	(i) 15 mm	each	R.O.	38.00
76	Supplying, fitting and fixing of approved brand and make of G.I. union with I.S.I. mark complete in all respect in any floor.			
	(i) 15 mm	each	R.O.	53.00
77	Supplying, fitting and fixing of approved brand and make of G.I. cross with I.S.I. mark complete in all respect in any floor.			
	(i) 15 mm	each	R.O.	49.00
	(ii)20 mm	each	R.O.	71.00
78	Supplying, fitting and fixing of G.I. short piece of TATA make (Above 50mm & upto 150 mm.) complete in all respect in any floor.			
	(i) 15 mm	each	R.O.	55.00
79	Supplying, fitting and fixing of approved brand and make of G.I. reducing elbow with I.S.I. mark complete in all respect in any floor.			
	(i) 20 mm X 15 mm	each	R.O.	34.00
80	Supplying, fitting and fixing of approved brand and make Chromium plated Hand shower 70mm dia Round Shape Single flow with Flexible Tube & fittings (Equivalent to Code No. ESH-5512 & Model -Tropical / Sumthing Special of ESSCO or similar) complete in all respect in any floor.	each	R.O.	1581.00
	Supplying, fitting and fixing of approved brand and make hand Shower (Health Faucet) with 1mtr Flexible Tube with Wall Hook (Equivalent to Code No.573 & Model -ALLIED of Jaquar or similar) complete in all respect in any floor.	each	R.O.	1611.00
82	Supplying, fitting and fixing of approved brand and make of galvanised iron jamnut with I.S.I. mark complete in all respect in any floor.			
	(i) 15 mm	each	R.O.	12.00
	(ii)20 mm	each	R.O.	15.00
83	Supplying, fitting and fixing of glass shelf with Suitable guardrail (stainless steel/chromium plate/aluminum) as per approved engineer in charge, Ordinary type with 5.5 mm sheet glass 600 mm X 125 mm complete in all respect in any floor.	each	R.O.	485.00
	Supplying, fitting and fixing of approved brand and make complete in all respect in any floor.			
	(a) Liquid soap container			
84	(i) Chromium plated.	each	R.O.	506.00
	(ii) PTMT (Prayag or equivalent).	each	R.O.	268.00
	(b) Soap holder.			
85	(i) PTMT (Prayag or equivalent)	each	R.O.	171.00
	Supplying, fitting and fixing approved brand and make stainless steel sink complete with waste fittings and two coats of painting of C.I. brackets. complete in all respect in any floor.	each	R.O.	6381.00
	(a) Sink only			
86	(ii) 530 mm X 430 mm X 180 mm	each	R.O.	4143.00
	(iii) 630 mm X 550 mm X 180 mm	each	R.O.	4798.00
	(b) Sink with drain board 1050 mm X 450 mm X 180 mm.	each	R.O.	6381.00
87	Dismantling sink with or without drain board & brackets with or without waste fittings. complete in all respect in any floor.			
	(i) Upto 450 mm length	each	R.O.	41.00
	(ii) Above 450 mm and upto 600 mm length	each	R.O.	53.00
	(iii) Above 600 mm and upto 750 mm length	each	R.O.	59.00
87	(iv) Above 750 mm length	each	R.O.	76.00
	Refixing sink with or without drain board & brackets with or without waste fittings. complete in all respect in any floor.			
	(i) Upto 450 mm length	each	R.O.	76.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
87	(ii)Above 450 mm and upto 600 mm length	each	R.O.	76.00
	(iii)Above 600 mm and upto 750 mm length	each	R.O.	76.00
	(iv)Above 750 mm length	each	R.O.	118.00
	Supply ,Fitting & Fixing of approved brand and make PVC Bottle waste tap complete in all respect in any floor.			
88	(a)32mm	each	R.O.	181.00
	(b)40mm	each	R.O.	189.00
89	Supplying, fitting and fixing complete Bottle waste trap (Heavy Quality)PTMT or equivalent 32 mm with connecting pipe (Prayag or equivalent).complete in all respect in any floor.	each	R.O.	522.00
90	Removing chokage of urinal and waste trap.complete in all respect in any floor.	each	R.O.	26.00
91	Supplying , fitting and fixing circular Towel Ring Model No. AEC-1121, Jaguar of equivalent make as per direction of Engineer-in-charge & approved by respective authority complete in all respect in any floor and necessary places.	Nos.	R.O.	711.00
92	Supplying, fitting and fixing Orissa pattern water closet in white glazed vitreous chinaware of approved make in position complete excluding 'P' or 'S' trap (excluding cost of concrete for fixing).			
	(a) 580 mm X 440 mm	each	R.O.	2026.00
	(b) 530 mm X 410 mm	each	R.O.	1907.00
PART C - ELECTRICAL WORKS				
1	Supplying and fixing following piano type switch/socket on the existing switch box/cover including connections etc. as required.			
	a) 5/6 Amps switch	Each	R.O.	34.00
	b) 2 Way 5/6 amps switch	Each	R.O.	39.00
	c) 15/16 amp switch	Each	R.O.	75.00
	d) 3 pin 5/6 amp socket outlet	Each	R.O.	42.00
	e) 6 pin 15/16 amp socket outlet	Each	R.O.	86.00
	f) Bell push	Each	R.O.	47.00
	g) Switch type step electronic mini fan regulator	Each	R.O.	222.00
	h) Socket type step fan regulator	Each	R.O.	254.00
	2	Supplying and fixing following modular switch/socket/Electronic fan regulator/blanking plate on the existing modular plate & switch box including connections but excluding modular plate etc. as required.		
a) 5/6 Amps switch		Each	R.O.	84.00
b) 2 Way 5/6 amps switch		Each	R.O.	99.00
c) 15/16 amp switch		Each	R.O.	114.00
d) 3 pin 5/6 amp socket outlet		Each	R.O.	81.00
e) 6 pin 15/16 amp socket outlet		Each	R.O.	153.00
f) Bell push		Each	R.O.	114.00
g)2 Module fan regulator		Each	R.O.	288.00
h)1 Module fan regulator		Each	R.O.	347.40
i) Blanking plate		Each	R.O.	24.00
3	Supplying and fixing following size/modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.(Make:Crabtree/legrand)			
	a) 1 or 2 Module (75mm X 75mm)	Each	R.O.	175.00
	b) 3 Module (100mm X 75mm)	Each	R.O.	185.00
	c) 4 Module (125mm X 75mm)	Each	R.O.	205.00
	d) 6 Module (200mm x 75mm)	Each	R.O.	258.00
	e) 8 Module (125mm x 125mm)	Each	R.O.	297.00
	f) 12 Module (200mm x 150mm)	Each	R.O.	344.00
4	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required(Make:Crabtree/legrand)			
	a) 1 or 2 Module	Each	R.O.	83.00
	b) 3 Module	Each	R.O.	91.00
	c) 4 Module	Each	R.O.	101.00
	d) 6 Module	Each	R.O.	126.00
	e) 8 Module	Each	R.O.	151.00
	f) 12 Module	Each	R.O.	166.00
5	Supplying and fixing metal box of 150mm x 75mm x 60mm deep (normal size) on surface or in recess with suitable size of phenolic laminated sheet(heavy gauge) cover in front including providing and fixing 3 pin 5/6 amps outlet and 5/6 amps piano type switch, connection, painting etc. as required.(Make: Anchor/ssk)	Each	R.O.	205.00
6	Supplying and fixing metal box of 180mm x 100mm x 60mm deep (normal size) on surface or in recess with suitable size of phenolic laminated sheet(heavy duty) cover in front including providing and fixing 6 pin 5/6 amps & 15/16 amps piano type socket outlet and 15/16 amps piano type switch, connection, painting etc. as required.(Make: Anchor/ssk)	Each	R.O.	287.00
7	Supplying and fixing suitable size G.I. box with modular plate and cover in front on surface or in recess, including providing and fixing 6pin 5/6 amps modular socket outlet and 5 amps modular switch, connection etc. as required.(Make:Crabtree/legrand)		R.O.	313.00
8	Supplying and fixing suitable size G.I. box with modular plate and cover in front on surface or in recess, including providing and fixing 6pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.(Make:Crabtree/legrand)	Each	R.O.	406.00

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
9	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/wooden block including connection etc as required(Anchor/ssk)	Each	R.O.	46.00
10	Supplying and fixing bakelite batten/angle holder including connection etc. as required.(Make:Anchor/SSK)	Each	R.O.	75.00
11	Erection of wall bracket / ceiling fittings of all sizes and shapes containing upto two GLS lamps per fitting, complete with all accessories including connection etc. as required.	Each	R.O.	58.00
12	Installation, testing and commissioning of pre-wired, fluorescent fitting/compact fluorescent fitting of all types, complete with all accessories and tube etc. directly on ceiling/wall, including connection with 1.5 Sqmm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	R.O.	100.00
13	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.	Each	R.O.	105.00
14	a) Fixing exhaust fan 230mm sweep after making hole in wall and making good damages and smooth cement finish etc. as practicable as possible and providing necy. length of PVC insulated wire and making connection for exhaust .	No.	R.O.	259.00
	b) Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. Upto 450 mm sweep	Each	R.O.	224.00
15	Supplying and fixing 5 amps to 32 amps rating, 240 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.			
	a) Single pole	Each	R.O.	173.00
	b) Single pole and neutral	Each	R.O.	445.00
	c) Double pole	Each	R.O.	463.00
	d) Triple pole	Each	R.O.	700.00
16	Supplying and fixing 40 amps to 63 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.			
	a) Single pole	Each	R.O.	497.00
	b) Double Pole	Each	R.O.	1107.00
	c) Four Pole	Each	R.O.	2159.00
	17	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	Each	R.O.
18	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, power painted including earthing etc as required (But without MCB/RCCB/Isolator)			
	b) 6 way, Double door	Each	R.O.	942.00
	c) 8 way, Double door	Each	R.O.	1061.00
	d)12 way, Double door	Each	R.O.	1151.00
19	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)			
	4 way (4 + 12), Double door	Each	R.O.	4502.00
20	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.			
	a) 25 amps	Each	R.O.	1650.00
	b) 40 amps	Each	R.O.	1719.00
	c) 63 amps	Each	R.O.	2242.00
21	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB) having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.(Make:legrand/hager)			
	a) 25 amps	Each	R.O.	2096.00
	b) 40 amps	Each	R.O.	2131.00
	c) 63 amps	Each	R.O.	2302.00
22	Earthing with G.I. earth pipe(medium Bonsal/Tata) 4.5 metre long, 40mm dia including accessoires, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/coke and salt as required.	Each	R.O.	3672.00
23	Supplying and laying 6 SWG GI wire at 0.50 metre below ground level for conductor earth electrode, including connection/termination with GI thimble etc. as required.	Mtr.	R.O.	28.00
24	Supplying and fixing metal box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.		R.O.	

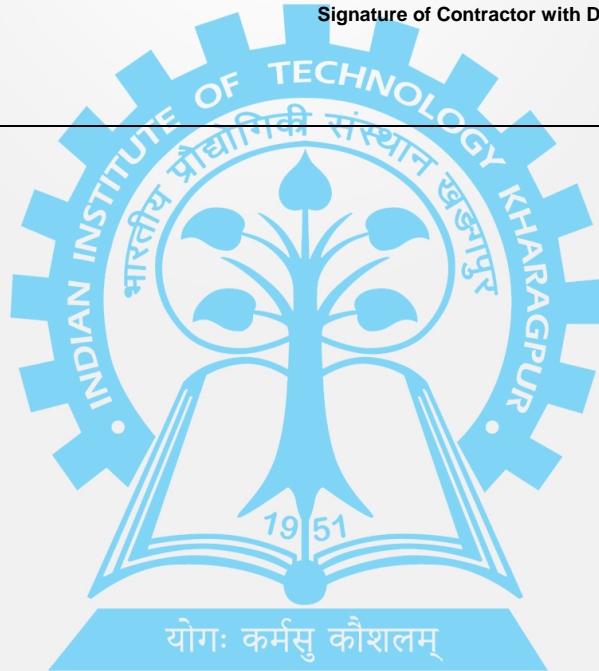
Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
	a) 75 mm X 75 mm X 60 mm deep	Each	R.O.	95.00
	b) 100 mm X 100 mm X 60 mm deep	Each	R.O.	114.00
	c) 150 mm X 75 mm X 60 mm deep	Each	R.O.	118.00
	d) 150 mm X 150 mm X 60 mm deep	Each	R.O.	168.00
	e) 180 mm X 100 mm X 60 mm deep	Each	R.O.	133.00
	f) 200 mm X 125 mm X 60 mm deep	Each	R.O.	174.00
	g) 200 mm X 150 mm X 60 mm deep	Each	R.O.	194.00
	h) 200 mm X 150 mm X 75 mm deep	Each	R.O.	201.00
	i) 200 mm X 250 mm X 60 mm deep	Each	R.O.	255.00
	j) 200 mm X 250 mm X 75 mm deep	Each	R.O.	270.00
25	Wiring for light point/fan point/exhaust fan point/call bell point(average length:8mtr.) with 1.5 Sqmm FRLS PVC insulated copper conductor single core cable in surface/recessed medium class PVC conduit, with piano type switch, phenolic laminated sheet, suitable size M.S. box and earthing the point with 1.5 Sqmm FRLS PVC insulated copper conductor single core cable etc. as required.(Make:1.1kV grade FRLS PVC insulated copper conductor-havells/finolex/Polycab, PVC MMS conduit-precision/Presto plast)	Each	R.O.	504.00
26	Wiring for twin control light point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way piano type switch, phenolic laminated sheet, suitable size MS box and earthing the point with 1.5 sq.mm. FR PVC insulated copper conductor single core cable etc as required.(Make:1.1kV grade FRLS PVC insulated copper conductor-havells/finolex/Polycab, PVC MMS conduit-precision/Presto plast)	Each	R.O.	719.00
27	Wiring for light point/fan point/exhaust fan point/call bell point(average length:8mtr.) with 1.5 Sqmm FRLS PVC insulated copper conductor single core cable in surface/recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box(Make:Crabtree) and earthing the point with 1.5 sq.mm. FR PVC insulated copper conductor single core cable etc. as required..(Make:1.1kV grade FRLS PVC insulated copper conductor-havells/finolex/Polycab, PVC MMS conduit-precision/Presto plast)	Each	R.O.	548.00
28	Wiring for twin control light point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box(Make:Crabtree) and earthing the point with 1.5 sq.mm.FR PVC insulated copper conductor single core cable etc. as required.(Make:1.1kV grade FRLS PVC insulated copper conductor-havells/finolex/Polycab, PVC MMS conduit-precision/Presto plast)	Each	R.O.	809.00
29	Supply & drawing following size FRLS PVC insulated copper conductor single core cable in existing surface/recessed steel/PVC conduit as required..(Make:1.1kV grade FRLS PVC insulated copper conductor-havells/finolex/Polycab,			
	a) 3 X 1.5 sq.mm.	Meter	R.O.	50.00
	b) 3 X 2.5 sq.mm.	Meter	R.O.	75.00
	c) 3 X 4 sq.mm.	Meter	R.O.	111.00
	d) 3 X 6 sq.mm.	Meter	R.O.	162.00
30	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required(Make:1.1kV grade FRLS PVC insulated copper conductor: Havells/Finolex/Polycab, PVC MMS conduit-Precision/Presto Plast)			
	a) 2 X 1.5 sq.mm. + 1 X 1.5 sq.mm. earth wire	Meter	R.O.	112.00
	b) 2 X 2.5 sq.mm. + 1 X 2.5 sq.mm. earth wire	Meter	R.O.	137.00
	c) 2 X 4 sq.mm. + 1 X 4 sq.mm. earth wire	Meter	R.O.	168.00
	d) 2 X 6 sq.mm. + 1 X 6 sq.mm. earth wire	Meter	R.O.	227.00
	e) 2 X 10 sq.mm. + 1 X 6 sq.mm. earth wire	Meter	R.O.	299.00
	f) 4X 4 sq.mm. + 2 X 4 sq.mm. earth wire	Meter	R.O.	281.00
	g) 4X 6sq.mm. + 2 X 6 sq.mm. earth wire	Meter	R.O.	395.00
31	Supply and fixing of 10-60 A, class 1, 1 -phase digital Energy meter with RS-232 port with box and all connection complete with all hardwares.Note: Old Meter has to be returned Institute Meter cell with intial and Final meter reading of New and old meter respectively.	Each	R.O.	2050.00
32	Supply and fixing of 10-60 A, class 1, 3 -phase digital Energy meter with RS-232 port and all connection complete with all hardwares.Note: Old Meter has to be returned Institute Meter cell with intial and Final meter reading of New and old meter respectively. Make:Secure	Each	R.O.	4800.00
33	Supply and fixing of 18Watt, 6500K, lumen output-100Lumens/ Watt, p.f.-0.9, high power LED tube and separate Regal Batten for LED luminaire with 5 years warrenty (Equivalent to Havells : LHEXBQP5IN1W018 AND LHFYBYPNIA1W022 /BAJAJ/PHILIPS)	Set	R.O.	816.00
34	Supply and fixing of 15Watt, 5000K, lumen output-100Lumens/ Watt, p.f.-0.9, high power LED die-cast , acrylic cover outdoor luminaire with 5 years warrenty (Equivalent to Havells : LHEWEB P7PL6S015 /BAJAJ/PHILIPS) on existing GI bracket with proper connection.	nos	R.O.	2160.00
35	Supply and fixing of 40mm dia. 1mr. Long GI(Medium,TATA/BANSAL) fabricated wall bracket with suitable size GI sadle, fastener etc.	nos	R.O.	358.00
36	Supply and fixing of fans of the following sizes & types:		R.O.	
	a) Ceiling fan 56"(1400mm) sweep, White colour		R.O.	1800.00
	Make:Orient (PSPO),USHA(Striker),CG(High Breeze)		R.O.	

Sl. No.	Description of items	Unit	Qty	Rate (Rs.)
	b) Ceiling fan 48"(1200mm) sweep White colour) Make:Orient (PSPO),USHA(Striker),CG(HS 5 Star Decora)	nos	R.O.	1674.00
	c) Metallic body Exhaust fan 230 mm with double ball bearing, with Guard. Make:USHA/ CG/EPC	nos	R.O.	1503.00
MAKE OF ITEM				
1	Piano Switch , Socket & Batten/Angle holder: Anchor/SSK			
2	Modular Switch & Socket: Crabtree(Thames)/legrand(Myrius)/MK			
3	Modular box and Plate: Crabtree(Thames)/legrand(Myrius)/MK			
4	RCCB,MCB: Legrand /Hager/ABB			
5	DB: Legrand /Hager/ABB			
6	Insulated copper conductor: Havells/Polycab/Finolex/Gloster			
7	PVC Conduit(MMS): Precesion/Presto plast/Finolex			

I agree to execute the work _____ % [in figure] ABOVE/BELOW/ AT PAR (_____

_____ percent) [in words] ABOVE/ BELOW/AT PAR Department estimated amount/ item rates.

Signature of Contractor with Date & Seal



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Composite Repair and Renovation of vacated faculty quarters to expedite new faculty member's accommodation (Part-IV) at IIT Kharagpur."

FORM OF TENDER

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

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

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

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

THE TOTAL AMOUNT PUT TO TENDER = Rs. _____ (Rupees _____
_____) which is _____ % [in figure]
(_____ percent) [in words] ABOVE / BELOW / AT PAR Department item 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.

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

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

Signature of the Tenderer / Authorised person

(Seal of the Tenderer)

Witness:

Name of the Tenderer _____

Signature: _____

(in Block letters)

Name: _____

Address: _____

(in block letters)

Address: _____

