



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
ESTATE OFFICE
NOTICE INVITING TENDER

Telephone No. 022 2576-4060, 022-2159-6922 email id drestate@iitb.ac.in

IIT Bombay invites digitally signed Technical Bid & Financial Bid for following work from the contractors having **similar** experience in Central Government Departments / State Government Departments / Central or State Autonomous Bodies / State or Central Public Sector Undertakings & Large Private Organizations. The detail of work is given below:

Sr. No.	Name of Work	Estimated Cost (In Rs.)	EMD (Rs.)	RFX	Duration of contract
1	Annual contract for maintenance and repair work at Mechanical, Electrical, HSS, RBTIC, IDC, Aerospace, DESE/ESE and others of academic area. EO/A/ACAD/WKS-131/26-27	Rs 49,88,294/- Incl.18% GST	Rs. 99,000/-	6100003157	12 months

Intending bidders need to register themselves on the IIT Bombay portal i.e. <https://portal.iitb.ac.in/vrp/index.jsp> to get User ID and Password. Please visit https://portal.iitb.ac.in/vrp/vrp_srm_docs.jsp for configuration process and user manual. For queries regarding vendor registration, and configuration process please contact on 022 - 2159 3001 (MDM Help-desk).

All tender documents, forms, etc are available online on <https://www.iitb.ac.in/resources/vendors-tenders> and Central Public Procurement Portal (CPPP) e-tender publishing portal of the Government of India.

Date and time of uploading of tender documents are from 25.09.2026 to 14.10.2026 till 11:15 a.m. Date of opening of Technical Bid will be 14.10.2026 at 11.30 a.m. and Financial Bid 21.10.2026 (Tentative).

All contractors/agencies should submit technical bid with the following documents, failing to which their tender will be summarily rejected from the tendering process:

1) i. Experience of having successfully completed works during the last 7 years ending last day of the month previous to the one in which applications are invited :

Three similar completed works costing not less than the amount equal to **40%** of estimated cost put to tender,

OR

Two similar completed works, costing not less than the amount equal to **50%** of the estimated cost put to tender

Or

One similar completed work of aggregate cost not less than the amount equal to **80%** of the estimated cost.

ii. One completed work of any nature (either part of (i) or a separate one) costing not less than the amount equal to **40%** of the estimated cost put to tender with some Central Government Departments / State Government Departments / State or Central Autonomous Bodies / State or Central Public Sector undertakings.

2) Upload a copy of the information in respect of manpower/mandays for above said work must be given in undertaking with official signature and seal/stamp, otherwise tender will be rejected.

3) P. F. registration certificate.

4) P. F. challans of last 12 months.

pm/vr
21/10/2026

5) ESIC registration certificate and copies of ESIC challans of the last 12 months (as per the labourers engaged during a particular month). Contractor name should be mentioned in the challans else the agency will be disqualified. OR Contractors' all risks insurance (CAR policy)

6) PAN card.

7) GST registration certificate.

8) Income Tax Return for **assessment year** i.e. of **2023-24 ,2024-25 & 2025-26**.

9) List of Equipment's, Machinery, Tools.

10) List of Technical Staff with copies of their Degree/diploma certificate.

11) **Submit** DD/FDR/BG of Rs. 99,000/- in the name of "The Registrar, IIT Bombay" **before the opening of Technical Bid.** Contractors are also requested to upload a scanned copy of it to the online Tendering portal.

12) Power of Attorney, if any.

13) Proof of Constitution: An affidavit in case of Sole Proprietorship, Partnership Deed in case of Partnership Firm, Article of Association in case of Private / Public Limited Companies.

14) **Litigation history** of the agency is required to be upload along with the application. A tender would not be awarded if any inquiry proceeding / criminal case is found pending against the agency. If there is no enquiry then undertaking has to be uploaded in the format given.

15) Bank Solvency certificate 40% of estimated amount issued within one year from any Nationalized / Schedule Bank from the date of publishing of Tender.

16) Detail statement for work completed, work in hand including balance commitment of work should be enclosed for last three year commencing from 1st April and ended with 31st March and contractor should upload his details as per **Annexure'A'** format with support of xerox copies of work order and work completion certificates, otherwise the bid capacity will not be calculated and his technical bid will be summarily rejected.

Terms & Conditions :

The documents listed above from Sr. No. 1 to 16 is mandatory for qualification in the technical bid evaluation process.

Select 'N5' tax code for 18% GST and upload all the above mentioned documents in "C folder" of online SRM tendering portal.

The work will be executed with lowest bidder as per the terms and conditions of work order and tender documents signed by the lowest bidder.

The validity of the bids will be valid for 6 months from the date of opening of tender.

No work will be subletted to third party. If found payment of final bill will not be processed and the contractor's name will removed from the enlistment without giving him further notice.

The rates is prepared from CPWD SOR 2023 & Rate Analysis.

Contractors are strictly prohibited from engaging in any correspondence related to tender documents with anyone other than the Tender Section. Any violation will result in disqualification from all future tenders.

No queries will be entertained within 24 hours prior to the opening of the tender. We kindly request all contractors to upload their quotations well in advance of the submission deadline to ensure a smooth and timely process.

IIT Bombay reserve its rights to reject any or all tenders without assigning any reason and without any reference. IIT Bombay reserves the right to request a detailed justification of the quoted rates from the lowest bidder, if deemed necessary by the Engineer-in-Charge. Should the justification provided by the bidder be considered unsatisfactory or unsubstantiated, the Engineer-in-Charge shall have full authority to reject the bid, irrespective of it being the lowest.


24/9/26
Dy. Superintending Engineer

24/9/26

DECLARATION

- (a) We are not involved in any litigation that may have an impact of affecting or compromising the works as required under this tender.
- (b) We are not black-listed by any Central/State Government/Public Sector Undertaking in India.
- (c) We hereby confirm and declare that M/s [Company Name] does not have any Litigation / Arbitration History with any Government department, Public Sector Undertaking (PSU), or Private Sector agency for works executed during the **last 5 years**.
- (d) I/we undertake that the documents submitted are genuine/authentic and nothing material has been concealed therefrom and that I/we are not debarred by any Government organization and are competent to have the contract. I/we understand that the contract is liable to be cancelled, if found to be having obtained, through fraudulent means/concealment of information.

(Signature of Authorized Signatory)

Name of the bidder: _____

Complete Address: _____

Address (Works), if _____

any: Contact Nos. _____

TO BE UPLOADED ON SRM TENDERING PORTAL WITH FINANCIAL BID

**ANNEXURE 'A' (FORMAT)
TECHNICAL BID**

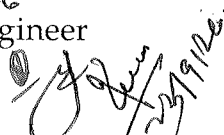
File No. : EO/A/ACAD/WKS-131/26-27

Name of Work : Annual contract for Maintenance and repair work at Mechanical, Electrical, HSS, RBTIC, IDC, Aerospace, DESE/ESE and others of academic area. (2026-2027).

Name of the Contractor -----

Sr. No.	Name of Client	Name of Works	2022-23 (In Lakhs)	2023-2024 (In Lakhs)	2024-2025 (In Lakhs)	2025-2026 (In Lakhs)	
						Completed	Balance
			-	-	-	-	-
			-	-	-	-	-
Total Amount (In Lakhs)			-	-	-	-	-

Note : Contractor must submit his details as per Annexure 'A' with declaration stating that **he is possessing all the original copies of work orders and experience certificates, it will be produced as and when required to IIT Bombay.** However, if it is found false at later stage, the contractor will be debarred or blacklisted. Whereas, if information is not submitted as per Annexure 'A' format his bid capacity will not been calculated and his tender will be summarily rejected.


24/9/26
Dy. Superintending Engineer

24/9/26

Signature of Contractor
Name & Address in full

WORKS UNDERTAKING

EO/A/ACAD/WKS-131/26-27

To,
Dy. Superintending Engineer
Indian Institute of Technology,
Powai, Mumbai – 400 076.

Sub : Annual contract for Maintenance and repair work at Mechanical, Electrical, HSS, RBTIC, IDC, Aerospace, DESE/ESE and others of academic area. (2026-2027)

Dear Sir,

We are hereby quoting all the rates for the attached schedule of short tender of the above mentioned job.

We hereby accept & signed all the General Terms and Conditions and special Conditions of Contract.

The work will be completed within specified time limit of One Year as mentioned in the notice inviting for short tenders.

The following information is required to be provided.

I / We agree to keep the tender open for One Hundred and Eighty (180) days from the due date of its opening / One Hundred and Eighty days from the date of opening of financial bid in case tenders are invited on 2/3 envelope system and not to make any modification in its terms and conditions.

	Male	Female
No. of Unskilled casual labour to be required per day.		
No. of Skilled casual labour to be required per day.		
Total Mandays required for completion of work.		

Thanking you,

Yours faithfully,

Signature of the Contractor
With official Seal / Stamp of the firm

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
POWAI, MUMBAI-76

EO/A/ACAD/WKS-131/26-27

ESTATE OFFICE

Name of work : Annual contract for Maintenance and repair work at Mechanical, Electrical, HSS, RBTIC, IDC, Aerospace, DESE/ESE and others of academic area. (2026-2027)

Schedule of Work

Sr. No.	Description of work	Qty.	Unit
	Dismantling		
1	Removing any type of roofing sheets and taking out the same outside IIT Campus etc. complete as directed. (Recovery of scrap will be done@ Rs. 5 per kg from Item of work against actual weight if material taken outside campus)	5.00	Sqm
2	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead of area beyond 3 sq. metres	10.00	Nos
3	Removing teak wood or aluminium paneled / partly glazed or veneer / plywood partitions, any type of ceiling carefully without damaging the frame or panels and taking out the same outside IIT Campus etc. complete.	10.00	Sqm
4	Carefully removing the existing G.I. pipe 12mm to 50mm diameter from floor / walls / slab/ trenches etc. with out damaging the structures and taking out the same outside campus including working platform / stepladder etc. completed as directed. (5% cost will be deducted from item of work for material taken outside IIT Campus)	10.00	Rmt
5	Carefully removing the existing C.I. / PVC / HDPE / C I drain pipes from floor / slab with out damaging the structure and taking out the same out of IIT Campus including scaffolding etc. completed as directed.	10.00	Rmt
6	Removing w.c. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed concrete around pans and removing pan carefully and desposing the debris outside the campus etc. complete.(5% cost will be deducted from Item of work if material taken outside campus)	5.00	Nos
7	Removing urinal pans or wash hand basins with brackets including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials out side the campus etc. all complete as directed by Engineer In-charge	5.00	Nos
8	Dismantling plain cement concrete work including breaking concrete by chiselling, wedging etc., and stacking the debris upto a distance of 50 metres or spreading as directed.	2.00	Cum

9	Dismantling burnt brick masonry (in cement mortar) with plaster including sorting out serviceable bricks and lowering down debris, stacking the same and debris separately upto a distance of 50 meters as directed etc. complete..	2.00	Cum
10	Removing the old cement concrete or any type of tiles/ door, window sill/ platform stone slab from floor / wall carefully including levelling the surface, cleaning the site, lowering down the debris from any height by manual or mechanical means and stacking the debris up to 50 mtr distance etc. complete.	10.00	Sqm
11	Carefully removing the existing damaged PVC/ wooden/ carpet flooring sheets & cleaning and leveling the surface, lowering down the debris and stacking upto distance of 50 metres as directed etc. all complete.	10.00	Sqm
12	Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in- charge and taking away the same outside campus.	5.00	Each
13	Removing existing waterproofing treatment from the WC up to the mother slab including tiles, plaster etc. of any thickness without damages to structure using electrically operated cutting tools, leveling and cleaning the surface for providing new specialist waterproofing treatment, including lowering down the debris and stacking the same at a distance of 50mtr etc. all complete as per directed by Engineer In-charge	2.00	Cum
14	Taking out old C.I. / PVC nahani trap/ gully trap with connecting pieces from floor carefully and taking out the same outside campus etc. all complete as per directed by Engineer In-charge. (5% cost will be deducted from Item of work if material taken outside campus)	10.00	Nos
15	Providing and fixing PVC bottle trap 38 mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 263 gms for Wash basin, urinal and sink and removing old fittings (if any) depositing it in Estate store.	10.00	Each
16	Excavation for foundation, trenches, Roadway etc. in earth, soil of all types, sand, gravel, soft and hard murum, soft rock etc. including removing the excavated materials up to a distance of 50 meters beyond the site of work and lift up to 1.50 meters, stacking and spreading as directed preparing the bed for the foundation and necessary dewatering using pump, backfilling, ramming, watering, including shoring and strutting, providing necessary barricading around excavated area etc. complete.	2.00	Cum
17	Laying dry trap / rubble stone soling of required thickness including hand packing and compacting in proper level all complete as directed by Engineer-in-charge.	2.00	Cum
18	Laying dry trap / rubble stone soling of required thickness including hand packing and compacting etc. complete using IITB stone including transporting stone from various locations from IIT campus up to working site and cutting the stone in required size as per requirement.	2.00	Cum

19	Providing and laying cement concrete 1:1:2 (M-25) using sand as fine aggregate and graded stone aggregate 20mm maximum size for foundation including shuttering, bedding, levelling dewatering by any means compaction, finishing curing etc. complete all as directed.	2.00	Cum
20	Providing second class burnt brick masonry with IS approved quality well burnt bricks having crushing strength of 35 kg. / square cm. and maximum water absorption of 20% in cement mortar 1:6 in superstructure including striking joints, racking out joints, watering etc. complete as directed.	2.00	Cum
21	Providing second class half brick masonry with best available approved quality well burnt bricks having crushing strength of 35 kg. / square cm. and maximum water absorption of 20% in cement mortar 1:4 in half brick thick wall including providing RCC patli M-20 concrete (1:1½:3), 100mm x 230mm to the full length of wall at every one meter height, using two numbers 8mm dia tor steel reinforcement, racking out joints and watering etc. complete as directed .	10.00	Sqm
22	Carefully removing internal or external plaster in patches or any length without damaging structure brickwork in the vicinity by using electric cutting tools including cutting a groove first to demarcate exact area of damage taken place stacking the debris with in 50 meter, cleaning the site etc. complete. including covering the furniture, floor, windows and partitions with plastic sheets while chipping etc. including working platform / stepladder completed as directed. Note:- a) No extra payment shall be made for extra thickness removed. b) Proper tools to be used for removal of concrete and it should be seen by contractor no damage on the other side / near by area will be taken place and if required other portions are to be checked by the contractors with respect to the damage before commencement of the work. c) The area in vertical plane shall be measured.	10.00	Sqm
23	Chipping of unsound/weak concrete material from slabs, beams, columns etc. with manual Chisel and/ or by standard power driven percussion type or of approved make including tapering of all edges, making square shoulders of cavities including cleaning the exposed concrete surface and reinforcement with wire brushes etc. and disposal of debris for all lead and lifts, including working platform / stepladder all complete as per direction of Engineer-In-Charge	10.00	Sqm
24	Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, including working platform / stepladder all complete as per direction of Engineer-In-Charge	20.00	Sqm
25	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect. SBR Polymer (@10% of cement weight) modified cementitious bond coat @ 2.2 kg cement per sqm of surface area mixed with specified proportion of approved polymer. including working platform / stepladder etc. Note: The actual consumption of polymer shall be measured for payment on Sqm basis. Challans of authorized dealer will be verified.	20.00	Sqm

26	Providing and Placing in position readymix polymer mortar manufacture by Dr. Fixit, Sunanda, Roff, MC Bouchmey, Chembond and adding water in the proportion of 1:0.14 (polymer mortar : water) in prepared grooves / cracks of the concrete court in layers as directed including mixing the polymer mortar with water using forced action mixer mild curing with water for 3 days and finishing the surface in all respect. including working platform / stepladder etc. Complete as directed. (Payment will be paid for the actual quantity of polymer mortar used on weight basis. Challans of authorised Dealer will be verified etc all complete as directed by Estate office).	3,000.00	Kg
27	Providing and laying super fluid micro concrete of approved manufacturer at any floor after reinforcement treatment coat including providing marine plywood formwork in line and level, sealing the joints/ gaps with POP & cleaning, curing etc. complete. (Payment will be paid for the actual quantity of polymer mortar used on weight basis. including working platform / stepladder etc. Challans of authorised Dealer will be verified etc all complete as directed by Estate office).	2,000.00	Kg
28	Providing and applying HILTY HIT-HY RE 500 injection in RCC including fixing in steel diameter 8mm to 12mm & length 4" to 6" reinforce bars including drilling hole as per manufacturer specifications, blowing out the hole and finishing etc. Complete as directed.	5.00	Nos
29	Providing internal cement plaster 12mm thick in single coats in cement mortar 1:4 without neeru finish to concrete or brick surfaces in all positions including curing, working platform / stepladder etc. complete as directed.	10.00	Sqm
30	Providing internal cement plaster 20mm thick in a single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces in all positions including curing, working platform / stepladder etc. completed as directed.	10.00	Sqm
31	Providing and applying white cement based Birla make wall care putty of average thickness 1mm, over plaster/ concrete surface in proper line / level to prepare surface even and smooth for including preparing the wall surface for the application of wall care putty ,working platform / stepladder etc. complete as directed.	20.00	Sqm
32	Providing and applying one coat of seal cement primer IITB approved brand, Including scrapping the surface, filling the holes with lambi/palti, covering the floor, windows, instruments with clean plastic sheet, including working platform / stepladder during painting etc. complete.	30.00	Sqm
33	Providing and applying Acrylic distemper of IITB approved manufacturer and of desired colour and shade to old / new surfaces in two or more coats , preparing the surfaces (excluding priming coat), covering the floor, windows, instruments with clean plastic sheet, use of working platform / stepladder during painting complete.	30.00	Sqm
34	Providing and applying roller finish plastic emulsion paint of IITB approved manufacturer and of desired colour and shade to old / new ceiling & wall surfaces in two coats with covering the floor, windows,instruments with clean plastic sheet including working platform / stepladder during painting (excluding priming coat) complete.	30.00	Sqm

35	Providing and applying one priming coat of IITB approved brand to wood and wood based surface, including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter, sand papering, step ladder, abro tape etc. all complete.	30.00	Sqm
36	Providing and applying one priming coat of IITB approved brand over steel and other metal surface, including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter, sand papering etc.	30.00	Sqm
37	Providing and applying two coats of synthetic enamel paint of IITB approved brand and shade to wood and steel work Scrapping, cleaning, covering the floor, windows, instruments during painting etc. complete.	60.00	Sqm
38	Providing sand face plaster externally using approved screened sand in all positions including base coat of 15mm thick in cement mortar 1:4 using water proofing compound per cement bag as per manufacturer specification and curing the same for not less than two days and keeping the surface of base coat rough to receive the sand faced treatment not to exceed 8mm thick in cement mortar 1:4 using water proofing compound per cement bag as per manufacturer specification as per manufacturer specification, finishing the surface by taking out grains and curing for 14 days. including working platform / step ladder etc. completed as directed.	5.00	Sqm
39	Providing and laying rectified Glazed Ceramic floor tiles, wall tiles of size 300x450 mm or approved size of 1st quality conforming to IS code, of approved make, in all colours, shades on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigments etc., complete.	5.00	Sqm
40	Providing and laying vitrified tiles of Size 600x600 mm and above for floor, skirting, dado's, riser, tread of steps tiles in different sizes having thickness not less than 10mm with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) or 20 mm thick plaster of cement mortar 1:3 (1 cement : 3 coarse sand) , jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc., complete.	5.00	Sqm
41	Providing and fixing C.P. bottle trap of approved make and quality connecting to waste coupling with minimum water seal for wash basin, urinals, sinks and removing old fittings (if any) depositing it in estate stores etc all complete as per directed by engineer in charge.	5.00	nos
42	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS code, in average 3mm thickness	5.00	Sqm
43	Providing and laying Kotah stone for flooring 25mm to 30mm thick of required size in plain / diamond pattern on a bed of 1:4 cement mortar (1 cement : 4 crush sand) including cement float, filling joints with neat cement slurry, curing, polishing and cleaning complete.	5.00	Sqm

44	Providing and laying Kotah stone for flooring 25mm to 30mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete	5.00	Sqm
45	Providing and fixing not less than 16-18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut Granite (area of slab above 0.50 m2) for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.	5.00	Sqm
46	Providing and fixing Kadappa stone slab for platform of approved type and design 25 to 30mm thick in cement mortar 1:4 including providing and fixing border patti on front edge, filling joints, curing, cleaning etc. complete.	5.00	Sqm
47	Providing and fixing two mm thick PVC flooring (vinyl flooring) of approved brand in roll or tile form having properties as per manufacturer specifications of approved shade and in approved pattern on smooth and leveled bed, fixing the flooring as per manufacturer specifications etc. complete.	5.00	Sqm
48	Providing and fixing 2nd class country teakwood frame for doors, windows, ventilators by using wood of required size as per site condition including all moulding, rebating, hold fast and finishing with one coat of primer, applying coal tar on the unexposed faces of frame etc. complete.	0.30	Cum
49	Providing and fixing solid core flush door in single or double leaf 32mm thick of commercial type of exterior grade, approved commercial plywood facing both side with glazing and , all necessary beads, moulding and lipping, 300mm long 2 nos. decorative type S.S handles for each shutters, 8" long stainless steel tower bolt 1 no for each shutter, 6 lever Godrej mortise lock with triplicate keys and other required fittings etc. complete (without frame). (fittings will be approved by Engineer in charge before fixing)	5.00	Sqm
50	Providing and fixing solid core flush door in single or double leaf 32mm thick of commercial type of exterior grade, approved commercial plywood facing both side without glazing , all necessary beads, moulding and lipping, 300mm long 2 nos. decorative type S.S handles for each shutters, 8" long stainless steel tower bolt 1 no for each shutter, 12" long stainless steel heavy duty aldop and other required fittings, 3 nos SS hinges for each shutter other require fittings and fixtures, polish on edges etc. complete (without frame). (fittings will be approved by Engineer in charge before fixing)	5.00	Sqm
51	P/F single leaf FRP moulded shutter 35mm thk. of Advance FRP company or any other approved brand in flush or depress panel design as approved. FRP thickness to be 2.00mm, including extra reeinforcement on sides and edges. The core of shutter to be Polyon Foam done in situ with wooden styles embedded for taking hinges, fixtures etc. Both side of shutter to be finish in Gel-Coat. Shutter to have recess to hinges. The whole shutter to be totally waterproff, resistance to mild acid/alkali. Colour as per choice including fixing of fittings such as 3 nos 4" heavy type stainless steel hinges for each shutter, 9" long tadi patti S.S, 2nos. 6" long S.S handles for each shutter etc. completed as directed.	5.00	Sqm

52	Removing and refixing aluminium/ wooden framed door and windows by making small modification with new screws and required fittings etc. complete as directed.	5.00	Nos
53	Providing and fixing ISI marked and IITB approved make hydraulic door closer to door shutter including making proper adjustment for smooth operation etc. complete.	5.00	Nos
54	Providing and fixing double action hydraulic floor spring with stainless steel cover plate minimum 1.25 mm thickness of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.	5.00	Nos
55	Providing and fixing Godrej or IIT approved make concealed type door closer of approved quality and make to door shutter including making proper adjustment for smooth operation etc. complete.	5.00	Nos
56	Providing and fixing mirror of Rectangular 600x450 mm (outer dimensions) superior glass (of approved quality) beveled edge mirror with 6mmthick hard board backing with CP brass cleats, screws and washers of approved make etc. all complete.	5.00	Each
57	Providing and fixing mirror of Rectangular shape 1500x450 mm superior glass (of approved quality) with or without plastic moulded frame as per directed of approved make and shade with 6 mm thick hard board backing.	5.00	Each
58	Providing fabricating and fixing in position required shape precoated Galvalume with 0.50 mm TCT ridge having 610mm width of Jindal make with required lapping for side of roofing sheet including cutting and fabricating in approved design,fixing the flashing properly as per manufacturers specification including scaffolding etc complete as directed.	10.00	Sqm
59	Providing and laying clear glass over table, table sides, table partitionetc. of 10mm thick as per require shape with buffing, edge polishing, cutting etc. complete as directed.	10.00	Sqm
60	Providing and fixing aluminium composite sheet 4mm thick both side plain in partition, paneling, false ceiling and any other work with necessary fittings and fixtures etc. complete as per the directions of Engineer-in-charge .	10.00	Sqm
61	Providing and fixing bright finished brass night latch of approved quality including necessary screws etc. complete	5.00	Each
62	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete	5.00	Each
63	Providing and fixing plywoods 6mm thick commercial for table top, panelling, shutters, partition and any other work with necessary fittings and fixtures etc. complete as per the directions of Engineer-in-charge .	10.00	Sqm

64	Providing and fixing plywoods 18mm thick commercial for table top, panelling, shutters, partition and any other work with necessary fittings and fixtures etc. complete as per the directions of Engineer-in-charge .	10.00	Sqm
65	Providing & fixing 1mm thick designer laminate of approved brand and pattern on partition/ door shutter/ door frame/ over window including, making necessary grooves wherever required as per standard practice with all required fittings and fixtures etc. complete as directed.	10.00	Sqm
66	Providing and fixing cement bonded wood particle board (bison panel) 18mm thick for chajja, ceiling, staircase at any floor, providing suitable hole for fixing nuts and bolts including making suitable groove on walls, making vata at joint, P/F sheet in proper slope including double scaffolding wherever required complete as directed.	10.00	Sqm
67	Providing and fixing cement bonded wood particle board (bison panel) 20mm thick for chajja, ceiling, staircase at any floor, providing suitable hole for fixing nuts and bolts including making suitable groove on walls, making vata at joint, P/F sheet in proper slope including double scaffolding wherever required complete as directed.	10.00	Sqm
68	Providing and fixing fly proof / mosquito proof stainless steel mesh of approved quality to windows, grills, doors and any other location using teak wood or aluminium anodised section of require size with necessary fittings and fixtures etc. complete as directed.	10.00	Sqm
69	Providing and fixing stainless steel handles designer 300mm long to door of approved quality and design with necessary fittings and fixtures etc. completed as directed.	5.00	Nos
70	Providing and fixing 12 mm thick Pre-laminated particle board with lamination on both sides flat pressed three layer or graded wood particle board conforming to IS:12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with galzing clips and rubber gasket/ C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of Engineer-in-charge	10.00	Sqm
71	Providing and fixing 15 micron anodized/ powder coated aluminium section for door frame, windows, partitions and any other require work etc. of required size including fixing with required fittings such as screws and other required fittings including fixing in proper alignment, rectifying all damaged, P/F wood inside frame for fixing hinges etc. completed as directed.	10.00	Kg
72	Providing and fixing aluminium section without anodising or powder coating for door frame, windows, partitions and any other require work of required size including fixing with required fittings such as screws and other required fittings including fixing in proper alignment, rectifying all damaged, P/F wood inside frame for fixing hinges etc. completed as directed	10.00	Kg
73	Providing and fixing heavy duty aluminium sliding window bearing roller of approved quality with necessary fittings and fixtures etc. completed as directed.	10.00	Each
74	Extra over for making glass toughened of any thickness including transport etc. completed as directed.	5.00	Sqm

75	Extra over for edge polishing to glass of any thickness including transport etc. completed as directed.	5.00	Rmt
76	Providing and fixing in position two track aluminium sliding windows using sections of size 61 mm x 31mm x 1.3 mm (not less than 0.659kg/mtr) thick for bottom, sides and top. The shutter should be of bearing bottom of size 40 mm x18 mm x 1.25 mm (not less than 0.417kg/mtr) thick , top member of size 40 mm x 18 mm x 1.20 mm (not less than 0.475kg/mtr) thick, Interlocking section size of 43 mm x 27 mm x 1.30 mm (not less than 0.558kg/mtr) thick and handle section of size 43mm x 18 mm x 1.30 mm (not less than 0.424kg/mtr) thick including providing and fixing 5mm thk. glass in the shutter using rubber gasket, approved quality minimum two nos. PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittingsetc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated).	10.00	Sqm
77	Providing and fixing in position two track aluminium sliding windows using drain bottom section of size 61 mm x 45 mm x 1.3 mm thick(1.055kg/Rmt) for bottom, sections of size 61 mm x 31mm x 1.3 mm thick(0.659Kg/Rmt) for sides and top. The shutter should be of bearing bottom of size 40 mm x18 mm x 1.25 mm thick(0.417Kg/Rmt) , top member of size 40 mm x 18 mm x 1.20 mm thick(0.475Kg/Rmt), Interlocking section size of 43 mm x 27 mm x 1.30 mm thick(0.558Kg/Rmt) and handle section of size 43mm x 18 mm x 1.30 mm thick(0.424Kg/Rmt) including providing and fixing 5mm thk. glass in the shutter using rubber gasket, approved quality minimum two nos.PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated).	10.00	Sqm
78	Providing and fixing in position three track aluminium sliding windows using sections of size 92 mm x 31mm x 1.30 mm (0.933kg/mtr) thick for bottom, sections of size 92 mm x 31mm x 1.30 mm (0.933kg/mtr) thick for sides and top. The shutter comprising of bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.469kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing 5mm thk. glass in the shutter using rubber gaskek with require fittings such as approved quality minimum two nos.PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated).	10.00	Sqm
79	Providing and fixing in position three track aluminium sliding windows using drain bottom section of size 92 mm x 45 mm x 1.05 mm (1.659kg/mtr) thick for bottom, sections of size 92 mm x 31mm x 1.3 mm (0.933kg/mtr) thick for sides and top. The shutter comprising of bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.469kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing 5mm thk. glass in the shutter using rubber gasket, approved quality minimum two nos. PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated).	10.00	Sqm

80	Supplying, fabricating and fixing in position partly openable and partly fixed aluminium window using aluminium sections 40 x 30 x 1.5mm (not less than 0.526 kg/mtr) size aluminum single border outer frame of window shutter, 40 x 37 x 1.5mm (not less than 0.724 kg/mtr) size aluminum Z section for window shutter, 28 x 14.5 x 1.5mm size (not less than 0.286 kg/mtr), aluminum clip for window shutter, 45 x 45 x 1.5mm size (not less than 0.764 kg/mtr) Z aluminum center patti for mullion, 37mm x 37mm (not less than 0.820 kg/mtr) angles 2mm thick, 5mm thick plain or frosted glasses with rubber gasket, 3 Nos. S.S. hinges 75mm size (heavy) on each window shutter, aluminum tower bolt 100mm size 1 Nos on each leaf, aluminum stay 200mm to 250mm long 1 No per leaf, aluminum handle 1 Nos. per leaf, provision for fixing AC with teak wood members inside box, (if required) including fixing the window shutter on the aluminium single side partition section for outer frame and intermediate section of size 63x38x1.47mm thick (not less than 0.781 kg/mtr)etc. complete.(all aluminium sections should be 15 micron anodized / powder coated section)	10.00	Sqm
81	Providing and fixing openable shutter made up of 18mm thick commercial plywood of approved make, P/F 1mm thick designer sunmika on expose side and edges of shutters and frame, P/F 0.80mm thick white sunmika on unexposed side and frame, P/F stainless steel hinges 2 nos. for each shutter, 1no handle(S.S) for each shutter, ball cage, lock or magnet etc. with screws in line and level, P/F wooden frame of required size for frame rectification of all damages etc. complete as directed.	5.00	Sqm
82	Providing and fixing in position shutter in sliding window using aluminium section for bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.469kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing 304 grade stainless steel mosquito proof mesh in the shutter using approved quality minimum two nos.PVC rollers, necessary locks, handles and other required fittings, making shutter removable as and when require etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated).	10.00	Sqm
83	Providing, making and fixing partly glazed partly opaque aluminium partition using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr)15 micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium double groove partition section for frame and 4mm thick both side colour and designer aluminium composite sheet of approved make of approved colour up to 1200mm height or as per requirment and 5mm thick clear plate glass fixed with glazing clips, rubber gasket etc. complete.	10.00	Sqm
84	Providing, making and fixing fully glazed aluminium partition/ fixed glazing using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr)15 micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium double groove partition section for frame, providing and fixing 5mm thick clear plain glass fixed with glazing clips, rubber gasket etc. complete.	10.00	Sqm

85	Providing, making and fixing fully opaque aluminium partition using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium double groove partition section for frame, providing and fixing 4mm thick both side colour and aluminium composite sheet of approved make of approved colour fixed with glazing clips, rubber gasket etc. complete.	10.00	Sqm
86	Providing, fabricating and fixing in position partly opaque and partly glazed aluminum anodized openable door in single or double leaf shutter using aluminum standard door section 80mm x 40mm (not less than 1.139kg/mtr) for verticals and middle, 100mm x 40mm (not less than 1.60kg/mtr) for top & bottom members, 4mm thick both side colour and designer aluminium composite sheet up to 1200mm height or as per plan and 5mm thick clear/ bajri glass above opaque panels, glazing clips, rubber gasket including using 3 nos stainless steel hinges 4" long for each shutter, 9" long stainless steel handles 2 nos. for each shutter, lock, stainless steel tower bolt 8" long 1 no for each shutter and other required fittings etc. all complete as directed. (All aluminium sections should be 15 micron anodized/ powder coated)	5.00	Sqm
87	Supplying, fabricating and fixing in position fully glazed double/ Signal leaf aluminum anodized openable door shutter using aluminum standard door section 80mm x 40mm (not less than 1.055 kg/mtr) for all verticals, top & bottom members, providing and fixing 5mm thick clear/ bajri glass, glazing clips, rubber gasket including heavy duty hinges, 1' long decorative stainless steel handles 2 nos. for each shutter, lock, vertical aluminium section at side etc. all complete as directed. (All aluminium sections should be 15 micron anodized/ powder coated and fittings should be approved before installation)	5.00	Sqm
88	Supplying, fabricating and fixing in position partly opaque and partly glazed aluminum anodized sliding door shutter using aluminum standard door section 80mm x 40mm for verticals, 100mm x 40mm for top, middle & bottom members, 4mm thick aluminium composite sheet of approved make and approved colour and 5mm thick clear/ bajri glass above opaque panels, glazing clips, rubber gasket including P/F sliding arrangement for top and bottom of door shutter, handles 2 nos., lock, vertical aluminium section at side etc. all complete as directed. (All aluminium sections should be 15 micron anodized/ powder coated). Width and height of shutter will be measured for payment.	5.00	Sqm
89	Supplying, fabricating and fixing in position fully glazed double leaf aluminum anodized sliding door shutter using aluminum standard door section 80mm x 40mm (not less than 1.055 kg/mtr) for all verticals, top & bottom members, providing and fixing 5mm thick clear/ bajri glass, glazing clips, rubber gasket including P/F sliding arrangement for top and bottom of door shutter, handles 2 nos., lock, vertical aluminium section at side etc. all complete as directed. (All aluminium sections should be 15 micron anodized/ powder coated and fittings should be approved before installation)	10.00	Sqm

90	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	10.00	kg
91	Providing and fixing colour coated Galvalume profile precoated sheet for roofing and cladding having thickness 0.60mm TCT of Jindal Make with required colour along with necessary accessories like self drilling and tapping screws with weather cap with all leads and lift including scaffolding etc. complete as directed.	10.00	Sqm
92	Providing fabricating and fixing in position required shape precoated Galvalume with 0.50 mm TCT ridge having 610mm width of Jindal make with required lapping for side of roofing sheet including cutting and fabricating in approved design,fixing the flashing properly as per manufacturers specification including scaffolding etc complete as directed.	10.00	Rmt
93	Providing fabricating and fixing in position required shape precoated Galvalume with 0.50 mm TCT flashing having 150mm width of Jindal make with required lapping for side of roofing sheet including cutting and fabricating in approved design,fixing the flashing properly as per manufacturers specification including scaffolding etc complete as directed.	10.00	Rmt
94	Providing fabricating and fixing in position required shape precoated Galvalume with 0.50 mm TCT gutter having 610mm width of Jindal make with required lapping for side of roofing sheet including cutting and fabricating in approved design,fixing the flashing properly as per manufacturers specification including scaffolding etc complete as directed	10.00	Rmt
95	Providing & fixing 12mm thick Gypsum board on partition, false ceiling including, making necessary groves wherever required as per standard practice, The boards should be taped and filled from underside to give smooth, seamless surface with all required fittings and fixtures etc. complete as directed.	10.00	Sqm
96	Providing and fixing wall paneling made out of 50 x 25 mm CCTW frame of size 600 x 600 mm center or as per site condition covered by 12mm thick commercial plywood finished with 1mm thick design sunmika of approved brand and color including all fittings such as nails, mirror screws with cap of approved quality, fevicol and other required fittings, making panels removable type as and when required etc. completed as directed.	10.00	Sqm

97	Providing & fixing false ceiling at all height including providing & fixing of framework made of special section, power pressed from M.S. sheets and galvanised with zinc coating of 120 gms/ sqm (both side inclusive) as per IS : 277 and consisting of angle cleat of size 25mm wide x 1.6mm thick with flanges of 27mm and 37mm, at 1200mm c/c, one flange fixed to the ceiling with dash fastener 12.5mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25 x10 x0.50mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I channels 45 x15 x 0.90mm running at the spacing of 1200 mm c/c, to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26 mm each having lips of 10.5mm, at 450mm c/c, shall be fixed in a direction perpendicular to G.I intermediate channel with connecting clip made out of 2.64mm dia x 230mm long G.I wire at every junction, including fixing perimeter channels 0.50mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/ partitions with the help of Rawl plugs at 450mm centre, with 25mm long dry wall screws @ 230mm interval, including fixing of Calcium Silicate Board to ceiling section and perimeter channels with the help of dry wall screws of size 3.5 x25mm at 230mm c/c, including jointing & finishing to a flush finish of tapered and square edges of the board with recommended jointing compounds, jointing tapes,finishing with jointing compounds in three layers covering up to 150mm on both sides of joints and two coats of primer suitable for boards, all as per manufacture's specification and also including the cost of making openingfor light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed, all complete as per drawings, specificaton and direction of the Engineer in charge but excluding the cost of painting with:8 mm thick Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process.	10.00	kg
98	Providing and fixing cove false ceiling using 6.00mm Calcium silicate board (hilux make) using G.I frame work for intermediate and perimeter channels of required width as per site requirement, entire suspended by strap hangers from soffits on the slab spread suitably including finishing with jointing, paper tape etc. complete as per manufacturer's specifications.	10.00	Rmt
99	Providing & Fixing of G.I Lay-in perforated or plain metal ceiling system consisting of 600x600mm size grid with fleece laying in tiles of pre-coated galvanized steel in 0.4/0.5 mm thickness in required colour with 15mm wide T - section silhouete flanges of required colour having rotary stitching on the main Runner including P/F 1200mm &600mm cross Tees , including stepladder as per manufacturer specifications and Engineer-in-Charge.	10.00	Sqm
100	Providing & Fixing of Dune microlook R.H 99% NRC ceiling system consisting of 600x600mm size grid with fleece laying in tiles of pre-coated galvanized steel in 0.4/0.5 mm thickness in required colour with 15mm wide T - section silhouete flanges of required colour having rotary stitching on the main Runner including P/F 1200mm &600mm cross Tees as per manufacturer specifications.	10.00	Sqm

101	Refixing the old removed aluminium frame partition with existing glass / particle boards etc. with new screws, nails, rubber gasket, beading and other required fittings including cutting making good the partition including scaffolding etc. all complete as directed. (replacement of glass/ particle board will be paid separately in respective items)	10.00	Sqm
102	Providing and fixing aluminium louvered ventilators using 50mm x 25mm x 16 gauge (not less than 0.593 kg/mtr) aluminium box frame anodized to 15 microns / powder coated for outer frame and intermediate vertical members as directed including 5mm thick plain or frosted glass 125mm wide for louvers at proper inclination including P/F glass on adjustable aluminium louvered of approved size and making provision of fixing exhaust fan etc. all complete as per directed by Engineer In-charge	10.00	Sqm
103	Providing & fixing 6mm thick Calcium silicate board on partition, false ceiling including, making necessary groves wherever required as per standard practice, The boards should be taped and filled from underside to give smooth, seamless surface with all required fittings and fixtures, including necessary sleeves for ducts finishing of joints cut outs etc. including working platform / stepladder etc. All complete as directed by Engineer In-charge.	10.00	Sqm
104	Providing & fixing 8mm thick Calcium silicate board on partition, false ceiling including, making necessary groves wherever required as per standard practice, The boards should be taped and filled from underside to give smooth, seamless surface with all required fittings and fixtures, including necessary sleeves for ducts finishing of joints cut outs etc. including working platform / stepladder etc. All complete as directed by Engineer In-charge.	10.00	Sqm
105	Providing & fixing in position Aluminum partition made using 2.5" x 1.5" Aluminum pipe section at 600mm c/c as frame with 12mm thick commercial plywood with all required fittings and fixtures etc. complete as directed.	10.00	Sqm
106	Providing and laying in trenches I.S.I. approved heavy type galvanized iron pipe 15 mm dia nominal bore of class 'c' having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of oil paint with one coat of primer including trenching and refilling etc. complete or as directed.	5.00	Rmt
107	Providing and laying in trenches I.S.I. approved heavy type galvanized iron pipe 20mm dia nominal bore of class 'c' having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of oil paint with one coat of primer including trenching and refilling etc. complete or as directed.	5.00	Rmt

108	Providing and laying in trenches I.S.I. approved heavy type galvanized iron pipe 25mm dia nominal bore of class 'c' having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of oil paint with one coat of primer including trenching and refilling etc. complete or as directed.	5.00	Rmt
109	Providing and laying in trenches I.S.I. approved heavy type galvanized iron pipe 32mm dia nominal bore having of class 'c' weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of oil paint with one coat of primer including trenching and refilling etc. complete or as directed.	5.00	Rmt
110	Providing and laying in trenches I.S.I. approved heavy type galvanized iron pipe 40mm dia nominal bore of class 'c' having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of oil paint with one coat of primer including trenching and refilling etc. complete or as directed.	5.00	Rmt
111	Providing and laying I.S.I. approved heavy type galvanized iron pipes of 15 mm dia nominal bore of class 'c' having weight as per IS specification to walls, ceilings, floors etc. with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including necessary scaffolding etc. or as directed etc. complete.	5.00	Rmt
112	Providing and laying I.S.I. approved heavy type galvanized iron pipes of 20 mm dia nominal bore having of class 'c' weight as per IS specification to walls, ceilings, floors etc. with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including necessary scaffolding etc. or as directed etc. complete.	5.00	Rmt
113	Providing and laying I.S.I. approved heavy type galvanized iron pipes of 25mm dia nominal bore of class 'c' having weight as per IS specification to walls, ceilings, floors etc. with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including necessary scaffolding etc. or as directed etc. complete.	5.00	Rmt
114	Providing and laying I.S.I. approved heavy type galvanized iron pipes of 32mm dia nominal bore of class 'c' having weight as per IS specification to walls, ceilings, floors etc. with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including necessary scaffolding etc. or as directed etc. complete.	5.00	Rmt

115	Providing and laying I.S.I. approved heavy type galvanized iron pipes of 40mm dia nominal bore of class 'c' having weight as per IS specification to walls, ceilings, floors etc. with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including necessary scaffolding etc. or as directed etc. complete.	5.00	Rmt
116	Providing and fixing gun metal gate valve 20mm dia. nominal bore with C.I. wheel of approved quality (screwed end) with required fittings and fixtures etc. completed as directed.	5.00	Nos
117	Providing and fixing gun metal gate valve 25mm dia. nominal bore with C.I. wheel of approved quality (screwed end) with required fittings and fixtures etc. completed as directed.	5.00	Nos
118	Providing and fixing gun metal gate valve 32mm dia. nominal bore with C.I. wheel of approved quality (screwed end) with required fittings and fixtures etc. completed as directed.	5.00	Nos
119	Providing and fixing gun metal gate valve 40mm dia. nominal bore with C.I. wheel of approved quality (screwed end) with required fittings and fixtures etc. completed as directed.	5.00	Nos
120	Providing and fixing 15mm dia. nominal bore gun metal gate valve with C.I. wheel of approved quality (screwed end) with required fittings and fixtures etc. completed as directed.	5.0	Nos
121	Providing and fixing 15 mm dia nominal bore brass stop cock of approved quality with required fittings and fixtures etc. completed as directed.	5.00	Nos
122	Providing and fixing 20 mm dia nominal bore brass stop cock of approved quality with required fittings and fixtures etc. completed as directed.	5.00	Nos
123	Providing and fixing 1/2" dia Stop cocks and bib cocks of Jaquar (continental series) fittings consealed or open including necessary fittings and fixtures etc. complete as directed.	5.00	Nos
124	Providing and fixing 1/2" dia Two way taps Jaquar (continental series) fittings consealed or open including necessary fittings and fixtures etc. complete as directed.	5.00	Nos
125	Providing and fixing 1/2" dia Angular stop cocks Jaquar (continental series) fittings consealed or open including necessary fittings and fixtures etc. complete as directed.	5.00	Nos

126	Providing and fixing 12mm dia heavy duty brass chromium plated three way taps with all fittings etc all complete as directed.	5.00	Nos
127	Providing and fixing G.I. Pipes 15 mm dia nominal bore complete with G.I. fittings and clamps, making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall etc. completed as directed.	10.00	Rmt
128	Providing and fixing G.I. Pipes 20 mm dia nominal bore complete with G.I. fittings and clamps, making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall etc. completed as directed.	5.00	Rmt
129	Providing and fixing white glazed earthenware sink of size 450 x 300 x 150 mm including waste coupling, PVC pipe upto trap, testing etc. complete.	2.00	Nos
130	Providing and fixing white glazed earthenware sink of size 600x400x200 mm including waste coupling, PVC pipe upto trap, testing etc. complete.	2.00	Nos
131	Providing and fixing C.P brass toilet roll holder of approved make including necessary socket/ union etc. complete as directed.	5.00	Nos
132	Providing and fixing gun metal pressure reducing valve I.S.I. approved heavy type including removing existing pressure reducing valve , with all required fittings etc. complete as directed a)25 mm dia	2.00	Nos
133	Providing and fixing gun metal pressure reducing valve I.S.I. approved heavy type including removing existing pressure reducing valve , with all required fittings etc. complete as directed b) 32mm dia	1.00	Nos
134	Providing and fixing stealth faucet hand shower with flexible tube with chrome finish and wall hook of approved Jaquar make including necessary socket/ union etc. complete as directed.	2.00	Nos
135	Providing and fixing white 10 litre capacity P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete as directed.	5.00	Nos
136	Providing and fixing White solid plastic seat with lid for pedestal type W.C. pan, wall hung WC complete with require fittings and fixtures etc. complete as directed.	5.00	Nos

137	Providing and fixing white vitreous china pedestal type water closet (European type) with ISI marked white solid plastic seat and lid, 10 liter low level white P.V.C. flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required etc. complete as directed.	2.00	Nos
138	Providing and fixing Regular flush valve of Jaguar including making concealed arrangement by making cut out in walls including fixing 32mm dia galvanised iron / PVC heavy type flush pipe with fittings and clamps up to the WC and other required fittings and fixtures etc. completed as directed.	5.00	Nos
139	Providing and fixing flush valve with control cock of Jaguar including making concealed arrangement by making cut out in walls including fixing 32mm dia galvanised iron / PVC heavy type flush pipe with fittings and clamps up to the WC and other required fittings and fixtures etc. completed as directed.	2.00	Nos
140	Replacing flush valve by removing old and damaged valve, P/F new flush valve of Jaquar make (FLV 1089 DFP) by connecting with existing inlet and outlet connection with required fittings and fixtures etc. completed as directed.	2.00	Nos
141	Providing and fixing White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot restswater closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required etc. completed as directed.	2.00	Nos
142	Providing and fixing white wall hung with cistern closet Parryware make of approved with UF Soft close Seat & Cover wall hung fittings and other required fittings, cutting and making good walls and floors etc. complete as directed.	2.00	Nos
143	Providing and fixing white wall hung without cistern closet Parryware make of approved with UF Soft close Seat & Cover wall hung fittings and other required fittings, cutting and making good walls and floors etc. complete as directed.	2.00	Nos
144	Providing and fixing in position best quality salt glazed stone ware gully trap with 150mm x 150mm square inlet and 100 mm n.b. outlet conforming to IS 651 including embedding the trap in M-15 (1:2:4) cement concrete, construction of brick masonry chamber 300mm x 300mm internal in 230mm thick brick masonry, plastering, finishing with neat cement floating coat, providing and fixing C. I. cover and frame weighing not less than 7 kg. etc including removing the old damaged gully trap, connecting all old and new inlets and out let pipes including running lines, jointing etc. all complete as directed.	2.00	Nos

145	Providing and fixing urinal sensor flush valve electrically or battery operated of Askon or equivalent make including making cut out in walls and concealed outlet pipe up to the urinal pot with all required fittings and fixtures etc. completed as directed.	2.00	Nos
146	Providing and fixing white urinal parryware make whiz model type (flat back half stall urinal) including necessary fittings such as L shaped hooks, speeder and flushing system and bottle trap of Jaquar, Click Clack Waste coupling of jaquar, connection pipe upto trap or pipe etc. all complete as per directed by Engineer In-charge	2.00	Nos
147	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	2.00	Each
148	Providing and fixing P.V.C. rain water pipes 150-200mm outer dia. conforming to I.S. including proper rain water receiving recess with P.V.C. plug bend, necessary fittings such as offsets, shoes including fixing the pipe on wall using approved M.S brackets projecting 25mm to 40mm from face of wall & fixing with heavy duty PVC clips of approved quality & number, filling the joints using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, and maintenance for 3 years for any leakages or dislocation of pipes. All the PVC fittings and additional two piece socket clips shall be got approved from engineer in charge complete.	10.00	Rmt
149	Carefully removing existing PVC rain water of various diameter from its position and refixing the same by replacing damaged fittings including fixing the pipe on wall using approved M.S brackets projecting 25mm to 40mm from face of wall & fixing with heavy duty PVC clips of approved quality & number, filling the joints using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding etc. completed as directed.	10.00	Rmt
150	Arresting leakages from PVC storage tank by making necessary welding to cracked portion including making tank empty, removing tank from its position, turn it reverse if damaged is at bottom by disconnecting inlets and outlets, refixing the tank at its original position, making inlet and outlet connections at its original position, removing air lock if any with all tools and plants etc. completed as directed.	20.00	Per Crack
151	Providing and laying 110mm dia. 'B' Type P.V.C. pipes conforming to I.S. including proper slope, filling the joints using solvent cement etc. completed as directed.	10.00	Rmt
152	Providing and laying 75mm dia. 'B' Type P.V.C. pipes conforming to I.S. including proper slope, filling the joints using solvent cement etc. completed as directed.	10.00	Rmt
153	Providing and laying 50mm dia. 'B' Type P.V.C. pipes conforming to I.S. including proper slope, filling the joints using solvent cement etc. completed as directed.	10.00	Rmt

154	Providing and laying 40mm dia. 'B' Type P.V.C. pipes conforming to I.S. including proper slope, filling the joints using solvent cement etc. completed as directed.	10.00	Rmt
155	Providing and fixing 75mm(ID)dia ISI approved HDPE pipes manufactured by ARHAM Engineering/ BERLIA /NOCIL / PIL with wall thickness of 6 mm to 8mm for taking sewage waste water with all required fittings such as bend, elbows etc. with proper line and gradient connecting all joints with fusion butt weilding by using suitable welding machine or hot plate, testing the line & joint as per manufacturer specification etc. all complete as directed by Engineer In-charge.	30.00	Rmt
156	Providing and fixing ISI approved grade 75mm dia. cast iron waste water pipes with necessary fittings such as bends, tees, single junctions, double junctions, slotted vent, offsets on walls or in the ground including filling joints with cement mortar 1:2 and two coats of anticorrosive paint including fixing the pipe on walls by means of nails driven through lugs in wooden holders / battens complete or as directed.	10.00	Rmt
157	Providing and fixing ISI approved grade 100mm dia. cast iron soil / waste water pipe with necessary fittings such as bends, tees, single junctions, double junctions, slotted vent, offsets on walls or in the ground including filling joints with cement mortar 1:2 and two coats of anticorrosive paint including fixing the pipe on walls by means of nails driven through lugs in wooden holders / battens, complete or as directed.	10.00	Rmt
158	Providing and fixing 1/2" dia CP push tap of Jaquar with wall flange with stainless steel pipe upto urinal pot including necessary fittings and fixtures etc. complete as directed.	5.00	Nos
159	Providing and fixing salt glazed stoneware pipe 150mm dia including fittings such as bends, tees, single junctions, double junctions, laying, jointing (excluding excavation and refilling the trenches) etc.	10.00	Rmt
160	Providing and fixing salt glazed stoneware pipe 100mm dia including fittings such as bends, tees, single junctions, double junctions, laying, jointing (excluding excavation and refilling the trenches) etc.	10.00	Rmt
161	Providing and fixing oval shape white earthenware below counter wash hand basin of Parryware make including one cold water angle cock of Jaguar make (Continental series), Stainless steel click clack waste coupling, chromium plated brass bottle trap etc. complete as directed.	2.00	Nos
162	Providing and fixing oval shape coloured earthenware below counter wash hand basin of Parryware make including one cold water angle cock of Jaguar make (Continental series), Stainless steel click clack waste coupling, chromium plated brass bottle trap etc. complete as directed.	2.00	Nos

163	Providing & fixing colour table top wash hand basin including vertical pillar cock of jaguar, Stop Cock of jaguar, waste Coupling, chromium plated brass bottle trap, Connection Pipe upto trap or pipe, etc complete as directed.	2.00	Nos
164	Providing and fixing PTMT Ball cock 20mm dia nominal bore of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball etc. completed as directed.	10.00	Each
165	Providing and fixing PTMT Ball cock 25mm dia nominal bore of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball etc. completed as directed.	10.00	Each
166	Providing and fixing 100mm dia. Stainless steel Waste Coupling for wash basin and sink, of approved quality with require fittings and fixtures etc. completed as directed.	5.00	Each
167	Providing and fixing stainless steel sink having bowl size 610 x460x254mm of nirali make inside platform or on brackets including UPVC waste coupling pipe up to outlet pipe, steel waste coupling etc. complete as directed.	5.00	Each
168	Providing and fixing stainless steel sink having bowl size 560 x410x254mm of nirali make inside platform or on brackets including UPVC waste coupling pipe upto outlet pipe, steel waste coupling etc. complete as directed.	5.00	Each
169	Providing and fixing stainless steel sink having bowl size 410 x355x165mm of nirali make inside platform or on brackets including UPVC waste coupling pipe upto outlet pipe, steel waste coupling etc. complete as directed.	5.00	Each
170	Providing and fixing PTMT Bottle Trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms for Wash basin, urinal and sink and removing old fittings (if any) depositing it in Estate store.	10.00	Each
171	Providing and fabricating structural steel works in rolled sections like joists, channels, angles, tees, hollow sections and any other required sections etc. as per detailed designs & drawings for supports, rafters, purlins, railing, staircase and any other work including fixing in position with connecting plates, braces and welding, riveting, bolting as necessary including painting, scaffolding etc. complete.	100.00	kg

172	Providing and fixing mild steel grill work for window, ventilator, partition weighing 15 kg per sqm as per drawing including necessary welding and painting with one coat red oxide primer and two coats of synthetic enamel paint of approved shade etc. complete as directed.	100.00	Kg
173	Providing and erecting at site steel tubular H – frame double scaffolding with bracings to all heights as directed by engineer in charge before commencement of work and removing the same after completion of all external work requiring double scaffolding.	10.00	Sqm
174	Providing and erecting at site bamboo double scaffolding wherever required to all height as directed by engineer incharge before commencement of work and removing the same after completion of all external work requiring scaffolding.	10.00	Sqm
175	Providing and erecting single bamboo scaffolding wherever required to all height as directed by engineer incharge before commencement of work and removing the same after completion of all external work requiring scaffolding.	10.00	Sqm
176	Providing and fixing blackout horizontal (Marvell Make) roller blinds water resistant cloth of required size and colour including all necessary accessories and installation at any height etc.all complete as per directed by Engineer In-charge.(sample of blind should be approved before installation)	20.00	Sqm
177	Disposing debris, loose stones, boulders, concrete pieces broken etc. collected and stacked as directed including loading in trucks, transporting out of IIT Campus including obtaining approval from Government/ private land owners for disposing off on to their approved location. The contractor will be solely responsible for disposing debris out of campus and the debris are to be removed from site within 72 hours from stacking (30% voids will be deducted from actual measurement for debris, loose stones, boulders, concrete pieces).	10.00	Cum
178	Providing and fixing reflective type sun control film of approved type of Garware make with cutting, fixing etc. complete as directed.	20.00	Sqm
179	Providing temporary steel supports such as tubular steel props 50mm dia, as required for supporting system till the repaired work of the beam, column, slab, chajja, etc. work completed in all respects as directed and when required in any floor of any height inside and outside of the building and removing the supporting system as directed without damaging the structure.	20.00	Nos
180	Providing and fixing signboards with 3mm thick ACP sheet & radium sticker background including pasting, computerized designing & radium sticker cutting & pasting, fixing with approved fittings and fixtures etc. all complete as directed by Engineer in charge.	10.00	Sqm
181	Providing stainless steel signboard and name board plate (18 gauge) and fixing the same over walls and doors using stainless steel stud of approved quality etc. completed as directed.	50.00	sq. inch

182	Reparing to flush valve or flush tank by replacing Metropole fitting with all necessary fittings and fixtures etc. complted as directed.	10.00	Each
183	Providing, fabricating and fixing Chequered Plate of required thickness for steps and any other work including in required size, welding, fixing necessary supporting M.S frame work with the plate including one coat of steel primer and two coat of SEP etc. completed as directed. (M.S work will be paid separately)	100.00	Kg
184	Replacing Cylindrical lock for flush door or any other door shutter of approved quality with new lock with necessary screws etc. complete	10.00	Each
185	Polishing in high gloss/matt finish melamine clear polish on wood work in required color/wooden shade texture with following process in the sequence as detailed below: 1. The surface to be polished is rubbed with sand paper 80/120 no. and then with sand paper of 160/180 nos. 2. Applying two coats of sealer with spray gun and allowing sufficient drying time for 1st coat and 2nd coat is allowed to dry for 8 to 12 hrs. 3. On drying of sealer coat, wet rubbing with emery cloth of finer grading with ample water to remove excess sealer layer and make the surface further smooth after this wet rubbing, then surface is applied with special grade melamine fillers to fill all the small and big holes/grooves etc. Filler coat to be allowed to dry for 4 to 6 hrs on which again a light wet rubbing is done this surface is further allowed to dry for 12 hrs. 4. On this, 1st coat of melamine polish is applied with spray gun using melamine clear polish and melamine thinner in required proportion. This 1st coat is allowed to dry for 24 hrs then this dry surface is again fine wet rubbed smooth, which is further allowed to dry for 12 hrs. The final melamine polish is applied with compressor pressure spray gun using melamine clear polish and melamine thinner mixed in required proportion complete as per direction of Engineer-in-Charge. (Final coat to be done in 1 or 2 layers without gap of time.)	10.00	Sqm
186	Fabricating and fixing structural steel works supplied by Institute in rolled sections like joists, channels, angles, tees, hollow sections and any other required sections etc. as per detailed designs & drawings for supports, rafters, purlins, railing and any other work including fixing in position with connecting plates, braces and welding, riveting, bolting as necessary including painting, scaffolding etc. complete.	100.00	Kg
187	Providing waterproof plaster in WC 20mm thick for in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 2% by weight of cement.etc. all complete as per directed by Engineer In-charge	10.00	Sqm
188	Providing & laying brickbat coba in w.c. and bath in all positions in cement mortar 1:5 with waterproofing compound at the rate of 2% by weight of cement and covering 10 years' guarantee including all leads, lifts including furnishing a guarantee on requisite judicial stamp paper etc. all complete as per directed by Engineer In-charge	10.00	Cum
189	Providing waterproof bedding for flooring of bath and W.C. 25mm thick in cement mortar 1:3 using waterproofing compound 2% by weight of cement including levelling, curing etc. all complete as per directed by Engineer In-charge	10.00	Sqm

190	Supplying fabricating and fixing in position fully glazed aluminium openable window using aluminium section 42 x 30 x 1.5mm (0.526/rmt) size aluminium single border outer frame of window shutter, 42 x 37 x 1.5mm size(0.724kg/rmt), aluminium Z section for window shutter, 28 x 14.5 x 1.5mm(0.286kg/rmt) size, aluminium clip for window shutter 45 x 45 x 1.5mm(0.762kg/rmt)(size, Z aluminium center patti for mullion & intermediate section, 37mm x 37mm (0.820kg/rmt) aluminium angles 2mm thick, 5mm thick plain or frosted glasses with rubber gasket, 3 Nos. S.S. Hinges 75mm size (heavy) on each window shutter, aluminium tower bolt 100mm size 1 Nos on each leaf, aluminium stay 200mm to 250mm long 1 No per leaf, aluminium handle 1 Nos per leaf, provision for fixing AC with teak wood members inside box, (if required).etc. Complete. (all aluminium section should be 15 micron anodized/powder coated section)	10.00	Sqm
191	Providing and casting in situ dense and impervious cement concrete M25 of trap metal for RCC chajja as per detailed designs and drawings or as directed including centering and shuttering with strutting, propping at any floor etc. necessary compaction, roughening the surface for providing plaster and curing including scaffolding(Excluding steel reinforcement).	10.00	Cum.
192	Providing and fixing in position tor steel bar having grade Fe-500D or more for reinforcement of various diameters for R.C.C. footings, foundations, slabs, beams, columns, canopies, staircases, chajjas, lintels, pardies, coping, fins, dowel bars with sleeve, tie bar, any other required work etc. as per detailed designs, drawings and schedules including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required completed as directed.	200.00	Kg
193	Providing and fixing 75mm(1D)dia ISI approved HDPE pipes manufactured by ARHAM Engineering/ BERLIA /NOCIL / PIL with wall thickness of 6 mm to 8mm for taking sewage waste water with all required fittings such as bend, elbows etc. with proper line and gradient connecting all joints with fusion butt weilding by using suitable welding machine or hot plate, testing the line & joint as per manufacturer specification etc. all complete as directed by Engineer In-charge.	10.00	Rmt
194	Arresting leakage through HDPE pipe by welding/jointing the damaged member with required tools and tackles all complete as directed by Engineer-in-charge.	10.00	Job
195	Providing and fixing armstrong mineral fibre board 600mm x 1200mm sheet in existing false ceiling frame by removing damaged sheet with required modification in frame as necessary, including working platform / stepladder etc. all complete as directed by Engineer In- charge.	20	Per Nos.
196	Providing and fixing armstrong mineral fibre board 600mm x 600mm sheet in existing false ceiling frame by removing damaged sheet with required modification in frame as necessary, including working platform / stepladder etc.all complete as directed by Engineer In- charge.	200	Per Nos.
197	Providing and fixing Flush door lock set PCKNS70(kich make/equivalent) 70mm with Escutcheons with required fittings, screws all complete as directed by engineer incharge	10.00	Nos
198	Providing and fixing Seat cover of wall hung WC of jaquar/Euro soft closing(CNS-WHT-WCS1) including nut bolt for seat cover etc complete.	10.00	Nos
199	Providing and fixing 1/2" dia Pillar Cock of Jaquar make including necessary fittings and fixtures etc. all complete as per directed by Engineer In-charge	10.00	Nos

200	Providing and fixing shutter below platform made of aluminium anodized 15 micron and powder coated A- type section 50mm x 20mm or near available standard door section on top, bottom and sides, P/F 4mm thick hardner sheet of bakelite or equivalent, P/ F stainless steel hinges 75mm x 25mm (03 nos.). 02 nos., of s. S. towerbolt on each shutter 01 no. handle (S. S.), fixing the shutter to the existing cladding or aluminium frame with screws properly in line and level, rectification of all damages etc. complete.	10.00	Sqm
201	Supplying and fixing C.P. Bottle tap(Jaquar-(ALD-769 L300 x 190))including necessary fittings and fixtures etc all complete as directed by Engineer In-charge.	5.00	Each
202	Providing and laying cement concrete 1:11/2: 3 (M-20) using graded stone aggregate 20mm maximum size for foundation and bedding, levelling dewatering by any means compaction, including centering, formwork, cover blocks, finishing curing etc. all complete as directed by Engineer In-charge.	2.00	Cum.
203	Providing & Fixing of G.I Lay-in perforated or plain metal ceiling system consisting of 600x600mm size grid with fleece laying in tiles of pre-coated galvanized steel in 0.4/0.5 mm thickness in required colour with 15mm wide T - section silhouete flanges of required colour having rotary stitching on the main Runner including P/F 1200mm & 600mm cross Tees , including stepladder as per manufacturer specifications and Engineer-in-Charge.	10.00	Sqm
204	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles and jointing with grey cement slurry @ 3.3kg/sqm etc all complete.	10.00	sqm
205	Arranging welding maintenance works for old or new existing MS structure or gate or any other MS framework including necessary MS part or material not more than 2Kgs in weight, welding finishing, painting for welded part etc.	5.00	Job
206	Providing and fixing 12mm thick toughened glass including edge polishing, making holes for fixing in position including fittings, fixtures, transport, etc all complete.	10.00	Sqm
207	P/f pneumatic operational single flush 9 litre capacity (commandar make) flush tank with brackets and fittings, etc all complete as per directed by Engineer-in-Charge.	10.0	nos
208	Providing & fixing 1mm thick white laminate of approved brand and pattern on partition/ door shutter/ door frame/ over window including, making necessary groves wherever required as per standard practice with all required fittings and fixtures etc. complete as directed.	10.0	Sqm
209	Providing and fixing 5mm thick acrylic sheet board at desired place and location in aluminium framing/ wooden framing/ glass replacement/ window framing etc. including fitting, fixtures, scaffolding etc. all complete	10.0	Sqm
210	Providing and fixing trap door in existing false ceiling cutting and making 8mm Calcium silicate board trap door for service line using 15 mm GI pre-coated wall angle for framing and 8 mm calcium silicate board including all fixture with G.I support, stepladder , putty for felling gaps and joints ..etc.all complete as directed by Engineer In-charge.	20.0	Nos

211	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength and M.S. top cover of required thickness for rolling shutters.80x0.90 mm M.S. laths with 0.90 mm thick top cover..etc.complete as per the directions of Engineer-in-charge .	10.0	Sqm
212	Providing and fixing new worm gear at top and bottom with all necessary fitting etc.complete as per the directions of Engineer-in-charge .	1	Nos
213	Oiling, greasing rolling shutter and spring by opening the hood (house box) applying grease to spring, refixing the hood, applying greese to side guide channel, making pull type rolling shutter of any size with use of scaffolding/ step ladder etc. Complete as directed.	5.00	Job
214	Removing rolling shutters and collapsible gate of any size and type with fittings (if available) and taking out the same outside IIT Campus etc. complete. (5% cost will be deducted from Item of work for material taken outside campus)	5.00	Sqm
215	Labour charges for modification of the existing window MS grills by means of cutting, fabricating,welding etc and refixing it in position/line/level/plumb including scaffolding,taking care of necessary safety precautions at site etc. complets as directed.	10	Sqm
216	Providing and fixing weld mesh of 25mm x 25mm (10 guage) to structural steel frame work as per existing pattern of detailed drawing or as directed one coat of primer and two coat synthetic enamel paint, scaffolding etc complete.	10.00	Sqm
217	Providing and fixing in position fixed glazing using 15 micron / powder coated anodised Alu.section of size 100mm x 37mm x 1.5mm thick fixed to wall with screws and 5mm thick clear plain double glass fixed to the above frame in 12mm x 12mm 'U' clips with rubber gasket, Alu angle glazing , Alu glazing plate, Alu.clips,filling all gaps with appropriate etc.complete.	10.00	Sqm
218	Providing and fixing aluminum decorative type ornamental grills 50mm x 50mm opening size and 10mm thick on an anodized aluminum outer frame 50 x 25 x 17 gauge thick and intermediate members of hollow type box section, providing U / F type channels of required size around the grill etc. all complete as directed	5.00	Sqm
219	Providing and fixing aluminium LOUVRE Door sections, vertical and horizontal Door section 80mm x 40mm (not less than 1.139kg/mtr &, LOUVRE sections 60mm Section (not less than 0.27 kg/mtr including fixing L Angle ,120mm x 40mm (not less than 1.60kg/mtr) for top & bottom memberswith Screw/Fastner approved quality fittings, including stepladder/ working platform etc. complete as directed by Enqineer in charge. (Aluminium section anodizing)	5.00	Sqm

220	Providing, making and fixing aluminium Louvre partition using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized. fixed with U/F channel of required size around the, fittings, fixtures, stepladder/ working platform etc all complete.	5.00	Sqm
221	Providing, making and fixing decorative grill aluminium partition using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium double groove partition section for frame, including Providing and fixing aluminum decorative type ornamental grills 50mm x 50mm opening size and 10mm thick in existing partition section fixed with U/F channel of required size around the grill, fittings, fixtures etc all complete.	5.00	Sqm
222	Providing, fabricating and fixing in position decorative grill aluminum anodized openable door in single or double leaf shutter using aluminum standard door section 80mm x 40mm (not less than 1.139kg/mtr) for verticals and middle, 100mm x 40mm (not less than 1.60kg/mtr) for top & bottom members, including Providing and fixing aluminum decorative type ornamental grills 50mm x 50mm opening size and 10mm thick in existing partition section fixed with U/F channel of required size around the grill, glazing clips, rubber gasket including using 3 nos stainless steel hinges 4" long for each shutter, 9" long stainless steel handles 2 nos. for each shutter, lock, stainless steel tower bolt 8" long 1 no for each shutter and other required fittings etc. all complete as directed. (All aluminium sections should be 15 micron anodized/ powder coated)	5.00	Sqm
223	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)	100.00	Kg
224	Providing and fixing 10 mm dia & 4" long Anchor Fastener wherever necessary etc. complete.	5.00	Nos
225	Providing and fixing in position aluminium partition made using 2.5"x1.5" Aluminium pipe section (without anodizing) at 600mm c/c as frame with 12mm thick marine plywood Both side using screws, nails in proper line and level, making necessary arrangement of Glass panel & raceway with removable type panels for electrical/lan/telephone work with all required fittings and fixtures, inserting wood packing wherever required all complete as directed by Engineer-in-charge.	10.00	Sqm
226	Providing and fixing 10cm P.V.C. nahani trap fixed with S.S grating with S.S rim, P.V.C. plug bend and piece of P.V.C. pipe upto plug bend, etc. all complete as directed by Engineer In-charge.	10.0	Nos
227	Providing and fixing Urinal Valve Auto Closing System with Built-in Control Cock & Wall Flange of Jaquar with stainless steel pipe upto urinal pot including necessary fittings and fixtures etc. all complete as per directed by Engineer In-charge	10.0	Nos

228	Providing and fixing Toilet Cubicle System(Marino / greengreenlam make) in HPL Boards with Standard Dimension of 2105 mm (With 150mm bottom open space) Height x 1550 mm Width x 2105 mm Depth, Which Includes a 600 mm Width x 1820 mm Height Door or as per actual site requirements. Accessories Details: Aluminium- "U" Channel,SS door stopper channel,H section top rail and MS wall bracket, SS coat hook, SS privacy thump turn c/w occupancy indicator, SS door knob, gravity hinges left/right,SS spring loaded butt hinges with cover, rubble door stopper lining, screw & wall plugs. etc. Ten (10) years of warranty for the partitions against any moisture related defects and one (1) year warranty for the Restroom workmanship and hardware (accessories) against any manufacturing defect etc. all complete as per the Architectural drawings and as directed.	1.00	Nos
229	Providing and fixing Toilet urinal modesty System(Marino/ greenlam make) in HPL Boards with Standard Dimension of 1200 mm Height x 500 mm Width as per actual site requirements. Accessories Details: SS right angle brackets, screws and wall plugs etc. Ten (10) years of warranty for the partitions against any moisture related defects and one (1) year warranty for the Restroom workmanship and hardware (accessories) against any manufacturing defect etc. all complete as per the Architectural drawings and as directed.	2.00	Nos
230	Providing & fixing in position overhead storage cabinet having depth 1'-6" made out of using 18mm thick commercial plywood for sides, top, bottom, shelf & 12mm thick ply for back sides, 1mm thick decorative sunmica for outside and 1mm thick white sunmaica for inside surfaces , CP teakwood frame work/support fixing the unit on wall, 01 nos handle for each shutter, magnet, lock, polish with including necessary edging ,moulding,buffing, autohinges, & other hardware required fitting etc. all complete as per drawing or as directed.	4.00	Sqm

Note :

Time required for attending each and every complaint or executing the job will be finalised by the Engineer Incharge or his representative at the time of giving the job or handing over the complaint compensation @ Rs. 250 per day, per complaint, per job will be charged against delay in completion of job, if the delay is from contractor's side.

- 1) This schedule of work is given for reference purpose only. Contractors are requested to quote your rates online in financial bid.
- 2) If you will engage labourer 20 or more any day, you have to get labour licence as per contract Regulation & Abolition Act 1970 Rule 1971, and also, you have to keep all such record for inspection to the Principal Employer. If you will engage labour up to 10 Nos. per day, you have to file returns after completion of work as per Building & Construction Act to the Office of Regional Labour Commissioner (Central), Sion, Mumbai.
- 3) This work is to be executed as per the the clauses mentioned in the tender document signed by you. In addition to the existing safety clause of the tender document a penalty of Rs.5,000/- per case will be recovered from the bills of the particular works, in case any such safety violations are noticed.
- 4) 01% amount will be deducted from the bills for safety related measures which will be reimburse along with the final bill.
- 5) Taxes as per government notification time to time.
- 6) Contractor must pay GST Taxes to concern authority within 30 days time limit after receipt of payment from IIT Bombay & said record must be submitted to IIT Bombay Accounts Section, otherwise action will be taken as deemed fit.
- 7) If any malpractices / fraud / negligent professional behaviour or any discrepancy / inconsistency / disparity / deviation / disagreement / dissimilarity / mismatch noticed, their contract will be terminated by issuing one month notice by following legal procedure and will be blacklisted and informed to all Government Authorities and Organisations.