

INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY ESTATE OFFICE, POWAI, MUMBAI, MAHARASHTRA – 400 076

TEL. 022 2576 4995 E-mail: 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.) Incl. 18% GST	EMD (Rs.)	Time Limit	RFX No.
	Annual contract for maintenance & repair work at Mechanical, Electrical, HSS, RBTIC, IDC, Aerospace, DESE/ESE and others of academic area. EO/A/ACAD/WKS-103/24-25	Rs.48,47,012/-	Rs.97,000/-	01 year	6100001902

Intending bidders needs to be register themselves on IIT Bombay portal i.e. https://portal.iitb.ac.in/vrp/index.jsp to get User ID and Password. View the open tender on https://ep.iitb.ac.in/irj/portal Please visit https://portal.iitb.ac.in/vrp/vrp_srm_docs.jsp for configuration process and user manual. Queries regarding to vendor registration please contact on 022 – 2159 3001(ASC Help-desk) and queries regarding to online Bid submission please contact to +91 82915 56277/6377 or mail at srm@iitb.ac.in.

Date and time of submission of tender documents digitally are from 10.2024 to 23.10.2024 till 11:15 a.m.Date of opening of Technical Bid will be 23.10.2024 at 11.30 a.m. and and Financial Bid 23.10.2024 (Tentative)

Interested contractors/agencies are requested to upload Technical bid and Financial bid on the SRM tendering portal of IIT Bombay.

- (A) All contractors/agencies should upload technical bid with the following documents on SRM tendering portal, 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,
 - Two **similar completed works**, costing not less than the amount equal to 60% 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) 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 submit 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, and no Financial Bid will be opened. (All contractors/agencies are hereby informed that they should upload Technical bid as per format of Annexure "A", changing in format is not allowed).
 - 3) Upload a scan 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**.
 - 4) Bank Solvency certificate 40% of estimated amount issued within one year from any Nationalized / Schedule Bank from the date of publishing of Tender.
 - 5) P. F. registration certificate.
 - 6) P. F. challans of last 12months.
 - (i) ESIC registration certificate and copies of ESIC challans of last 12months.
 OR
 - (ii) Contractors' all risks insurance (CAR policy) / Mediclaim policy.
 - 8) PAN card.
 - 9) GST registration certificate.
 - 10) Income Tax Return for last 03 years i.e. of 2021-22, 2022-23 and 2023-24.
 - 11) List of Equipment's, Machinery, Tools.
 - 12) List of Technical Staff with copies of their Degree/diploma certificate.

- 13) Labour Licence obtained during in 03 years.
- 14) The contractors who were empanelled under Estate Office under (2018-23) list need not have to upload Demand Draft. The contractors other than empanel list that are applying for tender need to upload a scan copy of Demand Draft / Pay Order for Rs.97,000/-(EMD amount) drawn in favour of "The Registrar, IIT Bombay" on online Tendering Portal.
- 15) Power of Attorney, if any.
- 16) 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.

Note:

Those contractors who do not have documents mentioned above from <u>Sr. No. 1 to 16</u> need not apply as it is mandatory documents to qualify in technical bids.

Upload all your relevant documents in the serial order mentioned above. It is **advisable** not to make more than <u>03 folders of 5MB</u> while uploading documents.

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. (All agencies are requested to upload a scan copy of Terms and Conditions with official signature and seal/stamp on SRM online tendering portal)

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

If agency fails to submit the above mentioned documents by uploading to the online portal, their technical bid may be rejected.

Litigation history of the agency is required to be uploaded along with the application. Tender would not be awarded if any inquiry proceeding / criminal case is found pending against the agency.

No work will be subleted 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.

Contractor's/Agencies/Proprietor's are requested to give Power of Attorney to your representative to deal any matter with any Officers or Staff of IIT Bombay on behalf of you or your agency.

Rates of an estimate are based on CPWD-DSR-2021 and rate analysis.

The contractor have to quote his own rates online against each item of work and need to select N5 tax code thereafter.

Scan and upload all the above mentioned documents in "C folder" of online SRM tendering protal.

IIT Bombay reserve its rights to reject any or all tenders without assigning any reason and without any reference.

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.

Superintending Engineer (I/C)

TO BE UPLOADED ON SRM TENDERING PORTAL WITH FINANCIAL BID

ANNEXURE 'A' (FORMAT) TECHNICAL BID

File No.: EO/A/ACAD/WKS-103/24-25

Name of Work: Annual contract for Maintenance and repair work at Mechanical, Electrical, HSS, RBTIC, IDC, Aerospace, DESE/ESE and other of academic area.

Name of the Contractor -----

Sr. No.	Name of Client	Name of Works	2021-22 (In Lakhs)	2022-2023 (In Lakhs)		2024-2 (In La	
						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.

Superintending Engineer (I/C)

Signature of Contractor Name & Address in full

WORKS UNDERTAKING

EO/A/ACAD/WKS-103/24-25

To, Superintending Engineer (I/C) 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 other of academic area.

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. If fails to do so, the tender will be assumed incomplete and hence the same will be rejected.

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.

 No. of Unskilled casual labour to be required per day. No. of Skilled casual labour to be required per day. 	: :
The 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-103/24-25

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.

Schedule Of Works

Sr. No.	Description of work	Qty.	Unit
1	Removing door shutters and window shutters of any size and type with fittings (if available) and taking out the same outside IIT Campus etc. complete. (Recovery of wood scrap will be done @ Rs. 25 per kg, aluminium scrap @ Rs. 120 per kg and structural steel scrap @ Rs. 20 Per Kg from item of work against actual weight if material taken outside IIT campus.)	15.00	Nos
2	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. (Recovery of wood scrap will be done @ Rs. 25 per kg, aluminium scrap @ Rs. 120 per kg and structural steel scrap @ Rs. 20 Per Kg from item of work against actual weight if material taken outside IIT campus.)	25.00	Sqm
3	Carefully removing the existing G.I. pipe 12mm to 50mm diameter from floor / walls / slab etc. with out damaging the structures and taking out the same outside campus including scaffolding etc. completed as directed.(5% cost will be deducted from Item of work if material taken outside campus)	15.00	Rmt
4	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 inlcuding scaffolding etc. completed as directed.	15.00	Rmt
	Removing urinal pans or wash hand basins with brackets including disconnecting the sanitary and water supply connections, removing the same carefully; including throwing the dismantled materials out side the campus etc. Complete.	5.00	Nos
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 including desposing the dismantled material, debries outside the campus etc. Complete.	2.00	Nos
7	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

8	Dismantling burnt brick masonry (in cement mortar) with plaster including sorting out serviceable bricks and lowering down debrises stacking the same and debris separately upto a distance of 50 meters of spreading the debris as directed.	2.00	Cum
9	Removing the old cement concrete or any type of tiles from floor / wall carefully including levelling the surface, cleaning the site, stacking the debrises etc. complete.		Cum
10	Carefully removing the existing damaged PVC/ wooden flooring sheets tiles cleaning and leveling the surface and taking out the same outside IIT Campus as directed etc. all complete.	25.00	Sqm
11	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.	1.00	Each
12	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 debrises and stacking the same at a distance of 50mtr etc. all complete as directed.	2.00	Sqm
13	Taking out old C.I. / PVC nahani trap with connecting pieces from floor carefully and taking out the same outside campus etc. complete. (5% cost will be deducted from Item of work if material taken outside campus)	2.00	Nos
14	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
15	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.		Cum
16	Laying dry trap / rubble stone soling of required thickness including hand packing and compacting etc. complete using IITB stone including trasporting stone from various locations from IIT campus up to working site and cutting the stone in required size as per requirement.	1.00	Cum

17	Providing and laying cement concrete 1:1:2 (M-25) using sand as fine aggregate and graded stone aggregate 20mm maximum size fo foundation including shuttering, bedding, levelling dewatering by any means compaction, finishing curing etc. complete all as directed.	2.00	Cum
18	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 ir superstructure including striking joints, racking out joints, watering and scaffolding complete.	f 5.00	Cum
19	Providing second class burnt 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 palti M-20 concrete (1:1½:3), 100mm x 100mm to the full length of wall at every one meter height, using two numbers 8mm dia tor steel reinforcement, scaffolding, racking out joints and watering complete.	20.00	Sqm
20	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 debrises with in 50 meter, cleaning the site etc. complete. including covering the furniture, floor, windows and partitions with plastic sheets while chipping with double scaffolding. 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.	200.00	Sqm
21	Chipping the RCC surface and cleaning the rusted reinforcement and exposed surface by wire brush mechanical device or any other establish method and applying rust removing solution of approved make and quality with cotton waste swab to reinforcement and allowing to dry the same for 24 hours, brushing of loose partial and applying 1st coat of rust preventing coating of polymer and cement slurry in 1:1.5 proportion with soft brush without adding water including applying another coat of rust preventing after 4 hours allowing Air curing for 48 hours etc. including scaffolding etc. complete.	100.00	Sqm

22	Providing and applying an effective bond coat of Polymer (SBR) approved by IITB and cement in the proportion of 1:1 by using brush in multiples coats as required to accommodate the whole thickness of polymer modified mortar wherever required on the surface of old concrete / repaired concrete Polymer (SBR) of approved manufacturer should have the following properties: Suspended solid particles should not be less than 40% Specific gravity should not be more than 1.01 PH should not be less than 8.5 Note: The actual consumption of polymer shall be measured for payment on weight basis. Challans of authorized dealer will be verified.	200.00	kg
23	Providing and Placing in position Readymix Polymer mortar manufacture by Dr.Fixit, Sunanda, Roff or M.C. Bouchmey, Chembond and adding water in the proportion of 1:0.14(Polymer morter:water) at any floor over the prepared RCC surfaces in layers as directed (thickness of each layer shall not exceed 10 to 15mm) including mixing the polymer mortar with water using forced action mixer including wherever required mild curing will be done with water for 3 days etc complete.(payment will be paid for the actual quantity of polymer mortar PX used on weight basis.Challans of authorized dealer will be verified)	1500.00	kg
24	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 with the use of step ladder and curing complete	50.00	Sqm
25	Providing and applying white cement based Birla make wall care putty of averarge 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 etc. complete as directed.	25.00	Sqm
26	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 at the rate of 1kg per cement bag 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, finishing the surface by taking out grains and curing for 14 days, scaffolding etc. complete.	100.00	Sqm
27	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.	50.00	Sqm
28	Providing and laying vitrified floor tiles, wall tiles of size 600mm x 600mm and above with water absorption less than 0.08% and conforming to IS code of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc., complete.	30.00	Sqm

29	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.	, 10.00	nos
30	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		Sqm
31	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 mortal (1 cement : 4 crush sand) including cement float, filling joints with near cement slurry, curing, polishing and cleaning complete.	F 00	Sqm
32	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
33	Providing and fixing 16 to 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut Granite of any colour and shade 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),including providing and fixing border patti on front edge wherever necessary, cutting provision for basin and holes of required sizes in appropriate places to receive pipes wherever required, cleaning 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.	20.00	Sqm
34	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.	15.00	Sqm
35	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.	30.00	Sqm
36	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.	0.50	Cum

37	Providing and fixing solid core flush door in single or double leaf 32mm thick of commertial type of exterior grade, approved commertial plywood facing both side without glazing and venetians, all necessary beads, moulding and lipping, 100mm long 2 nos.handles for each shutters, 8" long stainless steel tower bolt 1 no for each shutter,6 lever Godrej mortise lockwith triplicate keys and other required fittings etc. complete (without frame). (fittings will be approved by Engineer in charge before fixing)	10.00	Sqm
38	Providing and fixing solid core flush door in single or double leaf 32mm thick of commertial type of exterior grade, approved commertial plywood facing both side without glazing and venetians, all necessary beads, moulding and lipping, 300mm long 2 nos. decoretive type S.S handles for each shutters, 8" long stainless steel tower bolt 1 no for each shutter,12" long stainless steel heavy duty aldrop 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)	10.00	Sqm
39	P/F single leaf FRP moulded shutter 35mm thk. of Advance FRP company 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. 9" long S.S handles for each shutter etc. completed as directed.		Sqm
40	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
41	Providing and fixing IS: 3564 marked hydraulic door closer of approved quality and Hyper make to door shutter including making proper adjustment for smooth operation etc. complete.	50.00	Nos
42	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.	2.00	Nos
43	Providing and fixing Godrej make concealed type door closer of approved quality and make to door shutter including making proper adjustment for smooth operation etc. complete.	2.00	Nos

44	Providing and fixing mirror of Rectangular 600x450 mm (oute dimensions) superior glass (of approved quality) beveled edge mirro with 6mmthick hard board backing with CP brass cleats, screws and washers of approved make etc. all complete.	2.00	Each
45	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.	1.00	Each
46	Providing and fixing plain precoated galvanized iron sheet for covering partition, door bottom and any other work having thickness 0.60mm of Jindal Make of required colour along with necessary accessories like self-drilling and tapping screws with weather cap with all leads and lift etc complete as directed.	5.00	Sqm
47	Providing and laying clear glass over table, table sides, table partitionsetc. of 10mm thick as per require shape with buffing, edge polishing, cutting etc. complete as directed.	1.00	Sqm
48	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.	5.00	Sqm
49	Providing and fixing bright finished brass night latch of approved quality including necessary screws etc. complete	25.00	Each
50	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
	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.	5.00	Sqm
52	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.	20.00	Sqm
53	Providing & fixing 1mm thick designer 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.	25.00	Sqm

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54	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.	5.00	Sqm
55	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
56	Providing and fixing fly proof / moisquito 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.	00.00	Sqm
57	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.	10.00	Set
58	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 l Type ll, 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	5.00	Sqm
59	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	15.00	Kg
60	Providing and fixing aluminium section with 15 micron anodized/powder coating for door frame, windows, partitions and any other require work on 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.	15.00	Kg
61	Providing and fixing heavy duty aluminium sliding window bearing roller of approved quality with necessary fittings and fixtures etc. completed as directed.	20.00	Each
62	Extra over for making glass toughened of any thickness including transport etc. completed as directed.	15.00	Sqm
	Extra over for edge polishing to glass of any thickness including transport etc. completed as directed.	20.00	Rmt

64	Providing and fixing in position two track aluminium sliding window 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 obearing 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 40 mm x 27 mm x 1.30 mm (not less than 0.558kg/mtr) thick and handle section of size 40mm x 18 mm x 1.30 mm (not less than 0.424kg/mtr) thick including providing and fixing5mm 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 as directed by Engineer in charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated).	10.00	Sqm
65	Providing and fixing in position three track aluminium sliding windows using sections of size 92 mm x 31mm x 1.30 mm 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 x 18 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. glassin the shutter using rubber gasked 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
66	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)		Sqm
67	Providing and fixing openable shutter made up of 18mm thick marine 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 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

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68	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 40 mm 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 anowhen require etc. complete as directed by Engineer in charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated).	5.00 5.00	Sqm
69	Providing, making and fixing partly glazed partly opaque aluminium partition using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr)15micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15micron / powder coated anodized aluminium double groove partition section for frame and½" (12mm) thick both side prelaminated three layer flat pressed teakwood particle board (phenol Bonded)of BWP type exterior grade for opaque panels and 5mm thick clear plate glass fixed with glazing clips, rubber gasket etc. complete.	10.00	Sqm
70	Providing, making and fixing partly glazed partly opaque aluminium partition using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr)15micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15micron / powder coated anodized aluminium double groove partition section for frame and4mm thick both side colour and 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.	5.00	Sqm
71	Providing, making and fixing fully glazed 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 fixing5mm thick clear plain glassfixed with glazing clips, rubber gasket etc. complete.	5.00	Sqm
72	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 fixing4mm thick both side colour and aluminium composite sheetof approved make of approved colour fixed with glazing clips, rubber gasket etc. complete.	5.00	Sqm
73	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 fixing½" (12mm) thick both side prelaminated three layer flat pressed teakwood particle board (phenol Bonded) of BWP type exterior grade fixed with glazing clips etc. complete.	10.00	Sqm

74	Supplying, fabricating and fixing in position fully glazed double lea 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 fixing5mm 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
75	Providing, fabricating and fixing in position partly opaque and partly glazed aluminum anodized openable door in single or double lead 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, 12mm thick both side prelaminated particle board of approved colour up to 1200mm height and 5mm thick clear/ bajri glassabove 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
76	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 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
	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 arrangment 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 payement.	5.00	Sqm

78	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,12mm thick both side prelaminated particle board of approved colour for opaque panels and 5mm thick clear/ bajri glass above opaque panels,glazing clips, rubber gasket including P/F sliding arrangment 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 payement.	5.00	Sqm
79	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 arrangment for top and bottom oof door shutter, handles 2 nos., lock, vertical alumnium section at sdie 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
80	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-incharge. (Only weight of grill to be measured for payment).	25.00	kg
81	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
82	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.	5.00	Rmt
83	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.	2.00	Sqm

84	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.	7 1 , 5.00	Sqm
85	Providing and fixing in position Calcium silicate board (hilux make) false ceiling as per India gypsum manufacturer's instruction with 6.00 mm thick Calcium silicate board screw/fixed to the underside of suspended from the main ceiling as per manufacture's instruction and specification. G. I. Grid should consist of ceiling sections at maximum center to center distance 450 mm, Perimeter channel intermediate 1200 mm. The ceiling section should be fixed to intermediate channel with connection clips G. I. Grid should be fixed to R.C.C.slab above with the help of 25mmX0.5mm strap hanger & soffit cleat. The joints between soffit cleat, strap hanger &G.I. grid should be fixed with nut bolts, Soffit cleats should be fixed to R.C.C. ceiling with W.E.type rawl plug&fastener maximum c/c distance (both ways) of strap hangers should be 1200mm.	3.00	Sqm
86	Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/fixed to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs and including labour, material, lifts etc. all complete.	10.00	Sqm
87	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.	5.00	Rmt
88	Providing & Fixing of G.I Lay-in perforated metal ceiling system consisting of 600x600mm size grid with fleece laying in tiles of precoated galvanized steel in 0.4/0.5 mm thickness in required colour with 15mm wide T - section silhoute 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
89	Providing & Fixing of Dune microlook R.H 99% NRC ceiling system consisting of 600x600mm size grid with fleece laying in tiles of precoated galvanized steel in 0.4/0.5 mm thickness in required colour with 15mm wide T - section silhoute flanges of required colour having rotary stitching on the main Runner including P/F 1200mm &600mm cross Tees as per manufacturer specifications.	5.00	Sqm

90	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)	50.00	Sqm
91	Providing and fixing aluminium louvered ventilators using 50mm × 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.	2.00	Sqm
92	Providing & fixing 6mm thick Calcium Silicate board on partition, false ceiling including, making necessary groves wherever required as perstandard 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.	5.00	Sqm
93	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.	E 00	Sqm
94	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.	15.00	Rmt
95	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.	15.00	Rmt
96	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.	15.00	Rmt
97	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.	2.00	Rmt

98	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.	2.00	Rmt
99	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, backnuts, 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.	40.00	Rmt
100	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, backnuts, 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.	30.00	Rmt
101	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.	30.00	Rmt
102	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.	15.00	Rmt
103	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.	10.00	Rmt
104	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.	10.00	Nos

105	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.		Nos
106	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.		Nos
107	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
108	Providing and fixing brass stop cock 15 mm dia nominal bore of approved quality with required fittings and fixtures etc. completed as directed.	30.00	Nos
109	Providing and fixing brass stop cock 20 mm dia nominal bore of approved quality with required fittings and fixtures etc. completed as directed.	10.00	Nos
110	Providing and fixing 1/2" dia Stop cocks and bib cocks of Jaquar (continental series) fiiitngs consealed or open including necessary fittings and fixtures etc. complete as directed.	30.00	Nos
111	Providing and fixing 1/2" dia Two way taps Jaquar (continental series) fiiitngs consealed or open including necessary fittings and fixtures etc. complete as directed.		Nos
112	Providing and fixing 1/2" dia Angular stop cocks Jaquar (continental series) fiiitngs consealed or open including necessary fittings and fixtures etc. complete as directed.		Nos
113	Providing and fixing 12mm dia heavy duty brass chromium plated three way taps with all fittings etc all complete as directed.	40.00	Nos
114	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.	30.00	Rmt
115	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.	10.00	Rmt
116	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.	1.00	Nos
117	Providing and fixing white glazed earthenware sink of size 600x400x200 mm including waste coupling, PVC pipe upto trap, testing etc. complete.	5.00	Nos
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118	Providing and fixing stealth faucet hand shower with flexible tube with chrome finsih and wall hook of approved Jaquar make inlcuding necessary socket/ union etc. complete as directed.	50.00	Nos
119	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.		Nos
120	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.		Nos
121	Providing and fixing white vitreous china pedestal type water closed (European type) with ISI marked white solid plastic seat and lid, 10 liter low level white 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.	3.00	Nos
122	Providing and fixing Regular flush valve of Jaguar including making concealed arrangment 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.	3.00	Nos
123	Providing and fixing flush valve with control cock of Jaguar including making concealed arrangment 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.	3.00	Nos
124	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.		Nos
125	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.		Nos
126	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.	1.00	Nos
127	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.	1.00	Nos

128	Providing and fixing in position best quality salt glazed stone ware gull trap with 150mm x 150mm square inlet and 100 mm n.b. outle conforming to IS 651 including embedding the trap in M-15 (1:2:4 cement concrete, construction of brick masonry chamber 300mm 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.	t) g 2.00 i	Nos
129	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
130	Providing and fixing white urinal parryware or equivalent make including necessary fittings such as L shaped hooks, speeder and flushing system and bottle trap of Jaquar, Click Clack Waste coupling or jaquar, connection pipe upto trap or pipe etc. complete as directed.	3.00	Nos
131	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.	5 00	Each
132	Providing and fixing P.V.C. rain water pipes 150mm 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 brakets 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, 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
133	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
134	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.	10.00	Per Crack
135	Providing and laying P.V.C. pipes 75mm dia.conforming to I.S. using sockets using rubber gasket with solvent cement etc. completed as directed.	5.00	Rmt

136	Providing and laying P.V.C. pipes 50mm dia.conforming to I.S. using sockets using rubber gasket with solvent cement etc. completed as directed.		Rmt
137	Providing and fixing ISI approved 50mm dia. HDPE pipes manufactured by NOCIL / PIL of various diameters with wall thickness of 2.60 mm to 10.00mm for taking drain water with all required fittings such as bend, tee, elbows etc. with proper line and gradient connecting all joints with fusion butt welding by using hot plate, keeping hole in wall / pardi etc. filling the patches, with cement concrete 1:1½:3, clamping the pipes on wall / column etc. with the use of scaffolding, testing the line, providing inspection joints with and caps etc. all complete as directed.		Rmt
138	Providing and fixing 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 including necessary scaffolding complete or as directed.	10.00	Rmt
139	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.	10.00	Nos
140	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.	15.00	Rmt
141	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.	15.00	Rmt
142	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 waste coupling, PVC heavy duty flexible pipe up to trap etc. complete as directed.	3.00	Nos
143	Providing & fixing colour table top wash hand basin parryware/CERA(ZEST-C846V)/ jaguar bowl with tap hole 480 x 385)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.	1.00	Nos
144	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
145	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
	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.	10.00	Each
140 141 142 143 144 145	directed. 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. 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. 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. 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 waste coupling, PVC heavy duty flexible pipe up to trap etc. complete as directed. Providing & fixing colour table top wash hand basin parryware/CERA(ZEST-C846V)/ jaguar bowl with tap hole 480 x 385)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. 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. 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. Providing and fixing 100mm dia. Stainless steel Waste Coupling for wash basin and sink, of approved quality with require fittings and	15.00 15.00 3.00 1.00	Rmt Rmt Nos Each

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x460x254mm inside platform or on brackets inlcuding UPVC waste	2.00	Each
x410x254mm inside platform or on brackets inlcuding UPVC waste	1.00	Each
x355x165mm inside platform or on brackets inlcuding UPVC waste	1.00	Each
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	10.00	Each
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	200.00	kg
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 (one coat of red lid oil paint and two coats of oil paint of approved shade) of anti-corrosive paint etc. complete.	10.00	Sqm
Add for extra weight or deduct for less weight over above item for fabricating such as cutting, shaping, riveting etc. mild steel for grill works including welding and painting with one coat of red lid oil paint and two coats of oil paint of approved shade.	25.00	kg
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.	100.00	Sq\m
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.	30.00	Sqm
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.	30.00	Sqm
Translucent water resistant cloth of required size and colour including all necessary accessories and installation at any height etc.complete all	10.00	Sqm
	x460x254mm inside platform or on brackets inlcuding UPVC waste coupling pipe upto outlet pipe, steel waste coupling etc. complete as directed. Providing and fixing stainless steel sink of nirali make Bowl size 560 x410x254mm inside platform or on brackets inlcuding UPVC waste coupling pipe upto outlet pipe, steel waste coupling etc. complete as directed. Providing and fixing stainless steel sink of nirali make Bowl size 410 x355x165mm inside platform or on brackets inlcuding UPVC waste coupling pipe upto outlet pipe, steel waste coupling etc. complete as directed. 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. 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. 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 of red lid oil paint and two coats of oil paint of approved shade) of anti-corrosive paint etc. complete. Add for extra weight or deduct for less weight over above item for fabricating such as cutting, shaping, riveting etc. mild steel for grill works including welding and painting with one coat of red lid oil paint and two coats of oil paint of approved shade. 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 s	Providing and fixing stainless steel sink of nirali make Bowl size 560 x410x254mm inside platform or on brackets inleuding UPVC waste coupling pipe upto outlet pipe, steel waste coupling etc. complete as directed. Providing and fixing stainless steel sink of nirali make Bowl size 410 x355x165mm inside platform or on brackets inleuding UPVC waste coupling pipe upto outlet pipe, steel waste coupling UPVC waste coupling pipe upto outlet pipe, steel waste coupling ctc. complete as directed. 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. 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. 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 (one coat of red lid oil paint and two coats of oil paint of approved shade) of anti-corrosive paint etc. complete. Add for extra weight or deduct for less weight over above item for fabricating such as cutting, shaping, riveting etc. mild steel for grill works including welding and painting with one coat of red lid oil paint and two coats of oil paint of approved shade. Providing and erecting at site steel tubular H – frame double scaffolding works including 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 a

Providing and fixing 25mm to 50mm wide vertical venetain blinds in aluminium or fabric strips of approved make and colour with all accessories etc. complete as directed	10.00	Sqm
broken 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 debrises out of campus and the debris are to be removed from site within 72 hours from stacking (30% voids will be deducted from actual	15.00	Cum.
Providing and fixing reflective type sun control film of approved type of Garware make with cutting, fixing etc. complete as directed.	20.00	Sqm
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.	10.00	No
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.	5.00	Sqm
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.	100.00	sq. inch
Reparing to flush valve or flush tank by replacing Metropole fitting with all necessary fittings and fixtures etc. complted as directed.	10.00	Each
Providing, fabricating and fixing Chequred 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)	10.00	Kg
	20.00	Each
IITB approved brand, cleaning the surface with the use of stepladder including scrapping the surface, filling the holes, covering the floor,	200.00	Sqm
approved manufacturer and of desired colour and shade to old / new ceiling & wall surfaces in two coats with the use of stepladder, preparing and levelling the surfaces with Acrylic palty, as per manufactures	100.00	Sqm
	aluminium or fabric strips of approved make and colour with all accessories etc. complete as directed Disposing debris, loose stones, boulders, concrete column, footing etc broken 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 debrises 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 like column, footing).etc all complete as per direction of Engineer Incharge. Providing and fixing reflective type sun control film of approved type of Garware make with cutting, fixing etc. complete as directed. 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. Providing and fixing signboards with 3mm thick ACP sheet & radium sticker cutting & pasting, fixing with approved fittings and fixtures etc. all complete as directed by Engineer in charge. 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. Reparing to flush valve or flush tank by replacing Metropole fitting with all necessary fittings and fixtures etc. completed as directed. Reparing to spiriting and fixing Chequred Plate of required thickness for steps and any other work including in required size, welding, fixing mecessary 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	Disposing debris, loose stones, boulders, concrete column, footing etc broken collected and stacked as directed including loading in trucks, transporting out of ITT Campus including loading in botaining approval from Government/ private land owners for disposing off on to their approved location. The contractor will be solely responsible for disposing debrises 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 like column, footing).etc all complete as per direction of Engineer Incharge. Providing and fixing reflective type sun control film of approved type of Garware make with cutting, fixing etc. complete as directed. 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, chalja, 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. Providing and fixing signboards with 3mm thick ACP sheet & radium sticker background including pasting, computerized designing & 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. 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. Reparing to flush valve or flush tank by replacing Metropole fitting with all necessary fittings and fixtures etc. complete as directed. Providing, fabricating and fixing Chequred 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

169	Providing and applying Acrylic oil bound distemper of IITB approved manufacturer and of desired colour and shade to old / new surfaces ir two or more coats including scaffolding, preparing the surfaces (excluding priming coat), covering the floor, windows, instruments during painting complete.	1 s 100.00	Sqm
170	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 etc. with the use of stepladder.	20.00	Sqm
171	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. with the use of stepladder.	20.00	Sqm
172	Providing and applying two coats of synthetic enamel paint of IITB approved brand and shade to wood and steel work with the use of step ladder including scrapping, cleaning, covering the floor, windows, instruments during painting etc. complete.	40.00	Sqm
173	Providing and applying Melamine polish of required finish to wood work by spray machine including knotting and preparing the surface by scrapping, applying French polishing, scaffolding if required etc. complete as directed.		Sqm
174	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.		Kg
175	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	40.00	Sqm
176	Providing & laying brickbat coba on terrace & 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. complete.	10.00	Cum
177	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.	40.00	Sqm

178	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)	5.00	Sqm
179	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).	2.00	Cum.
180	Providing and fixing in position tor steel TMT bar Fe 500 reinforcement of various diameters for R.C.C. beams, columns, chajjas, lintels, pardies, etc. as per detailed designs, drawings and schedules including cutting, bending, hooking the bars, binding with wires or tack welding and supporting including scaffolding as required complete.	50.00	Kg
181	Providing and fixing ISI approved 75mm diameter HDPE pipes manufactured by NOCIL / PIL of various diameters with wall thickness of 2.60 mm to 10.00mm for taking drain water with all required fittings such as bend, tee, elbows etc. with proper line and gradient connecting all joints with fusion butt welding by using hot plate, keeping hole in wall / pardi etc. filling the patches, with cement concrete 1:1½:3, clamping the pipes on wall / column etc. with the use of scaffolding, testing the line, providing inspection joints with caps etc. all complete as directed.	15.00	Rmt
182	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
183	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 all complete as directed.	25.00	Per Nos.
184	Providing and fixing Brass door handles H type 900mm with SS finish (Kich /Equivalent) similar to handles in VMCC with required fittings, screws all complete as directed by engineer incharge	2.00	Pair
185	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	1.00	Nos
186	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.	5.00	Nos

187	Providing and fixing 1/2" dia. (12mm) Long neck with Aerator pilla type cock of Jaquar make for wash hand basin or sink etc. complete.	r 5.00	Nos
188	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/I 4mm thick hardner sheet of bakelite or equivalent, P/ F stainless stee 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.	1 	Sqm
189	Providing, supplying & fabricating aluminium partition using perforated sheet 3mm thk fixed in aluminium frame of size 63mm x 38 mm x 1.5mm thk (0.942kg/Rmt) with glazing clip, rubber gasket etc all complete. similar to existing panel design wherever required(All alumnium sections should be 15 micron anodised/ powder coated)	20.00	Sqm
190	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
191	Providing dry trap / rubble stone soling using good quality stone of 15cm to 20cm thick including hand packing and compacting to give desired surface etc. complete.	5.00	Cum.
192	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.	5.00	Cum.
193	Providing and fixing modular false ceiling of 600mm x 600mm c/c and placing square alto bond sheet to fixed on frame work of aluminium section for suspended false ceiling consisting of aluminium T 1" x 1½"(25 x 40mm) weighing 0.39Kg/m suspended on 6mm dia. G.I rods weighing 0.22Kg/m at 1200mm c/c, fixed on wall beams including rounding the edge with aluminium L of 1"x 1½" (25mm x 40mm) weighing 0.39kg/m(all aluminium section shall be anodized 15micron)), making necessary cutout for light and fixtures includig all labour, material, lifts and scaffolding. As directed by Engineer in charge etc.	20.00	Sqm
194	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.	20.00	sqm
195	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.	10.00	Job
196	Providing and fixing 12mm thick toughned glass including edge polishing, making holes for fixing in position including fittings, fixtures, transport, etc all complete.	5.00	Sqm
197	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

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198	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.		Sqm
199	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	1.0	Sq,
200	Providing and fixing trap door in existing false ceilling cutting and making 8mm Calcium silicate board trap door for service line using 15mm 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 jointsetc.all complete as directed by Engineer In-charge.	2.0	Nos
201	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	5.00	Sqm
202	Providing and fixing new worm gear at top and bottom with all necessary fitting etc., complete.	2.00	Nos
203	Providing and fixing rolling steel shutter fabricated from 18/19 gauge steel laths with side guides, bottom rail, brackets, door suspension shaft including rolling springs, locking arrangement and housing box at the top with one coat of red lead primer etc. complete.	10.00	Sqm
204	Removing rolling shutters, door shutters and window shutters 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)	18.00	Sqm
200	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.	2.00	Job
206	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.	30.00	Sqm
207	Providing and fixing G.I. Welded mesh 12mm x 12mm and (18 gauge) to teakwood frame work including fixing weld mesh with 37mm x 12mm teakwood bedding patti and necessary pocketing for opening for shutters with necessary screws, fitting as directed	40.00	Sqm
208	Providing and laying super fluid micro concrete of approved manufacturer at any floor after reinforcement treatment coat including mixing with 10mm to 5mm size quartz aggregate in the ratio of 1 part Pidilite make roff crete to 0.75 part of quartz aggregate by weight providing marine plywood formwork in line and level, cleaning, curing etc. all complete as per directed by Engineer In-charge	3000.00	Kg

209	Providing and fixing in position aluminium three track sliding windows in heavy anodized section 15 micron powder coated 30mm series including fixing of tracks, making holes for drainage water fixing 5mm thick clear double glass including adding silicate gel crystals or equivalent material in between two glasses, heavy duty bearing ,glazing clips, silicon sealant, rubber gasket, locks with handles and other require fittings, pressure patti etc. all completed as directed. (all alu. fittings and sections should be 15 micron anodized or powder coated.)	5.00	Sqm
210	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.	5.00	Sqm
211	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	20.00	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.

Superintending Engineer (I/C)

No Star