



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.
1.	Term contract for repairs to 'A' type & 'B' type residential vacant/occupied quarters at Central area. EO/A/CENTRAL/WKS-88/24-25	Rs.49,28,727/-	Rs. 98,000/-	<b>06 MONTHS</b>	<b>6100001874</b>

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](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](mailto:srm@iitb.ac.in) .

Date and time of submission of tender documents digitally are from 13.09.2024 to 25.09.2024 till 11:15 a.m.Date of opening of **Technical Bid will be 01.10.2024 at 11.30 a.m. and and Financial Bid 01.10.2024 (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,  
OR  
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.  
AND  
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 1<sup>st</sup> April and ended with 31<sup>st</sup> 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.
- 7) (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.98,000/-(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 Sr. No. 1 to 16 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 **03 folders of 5MB** 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 subletted to third party. If found payment of final bill will not be processed and the contractor's name will removed from the enlistment without giving him further notice.

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 fair market 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 portal.

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)

*[Handwritten signature]*  
12/9/24 17/9

**TO BE UPLOADED ON SRM TENDERING PORTAL WITH FINANCIAL BID**

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

File No. : EO/A/CENTRAL/WKS-88/24-25

Name of Work : Term contract for repairs to 'A' type & 'B' type residential vacant / occupied quarters at Central area.

Name of the Contractor -----

Sr. No.	Name of Client	Name of Works	2021-22 (In Lakhs)	2022-2023 (In Lakhs)	2023-2024 (In Lakhs)	2024-2025 (In Lakhs)	
						Completed	Balance
			-	-	-	-	-
			-	-	-	-	-
Total Amount (In Lakhs)			-	-	-	-	-

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

*Handwritten signature*  
18/09/2024

Superintending Engineer (I/C)

*Handwritten signature*  
12/9/24

*Handwritten signature*  
17/9

Signature of Contractor  
Name & Address in full

## WORKS UNDERTAKING

EO/A/CENTRAL/WKS-88/24-25

To,  
Superintending Engineer (I/C)  
Indian Institute of Technology,  
Powai, Mumbai – 400 076.

Sub : Term contract for repairs to 'A' type & 'B' type residential vacant / occupied quarters at Central 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 06 Months 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.

1) No. of Unskilled casual labour to be required per day. : .....

2) 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 - 400 076.

EO/A/CENTRAL/WKS-88/24-25

ESTATE OFFICE

Name of work :- Term contract for repairs to 'A' type & 'B' type residential vacant / occupied quarters at Central area.

SCHEDULE OF WOK

Sr. No.	Description of work	Qty.	Unit
1	Carefully removing internal or external plaster in patches or any length and at any height without damaging structure or brickwork in the vicinity including double scaffolding by using electric cutting tools including cutting a groove first to demarcate exact area of damage taken place and removing with chisel & hammer including stacking the debris with in 50 meter, cleaning the site etc. complete. including using stepladder for internal plaster wherever required covering the furniture, floor, windows and partitions with plastic sheets Note : a) No extra payment shall be made for extra thickness removed. b) The area in vertical plane area shall be measured.	50.00	Sqm
2	Removing the old cement concrete or any type of tiles from flooring manually at any floor including bedding levelling the surface, cleaning the site including sorting our serviceable tiles and lowering to ground level the debris and stacking it upto a distance of 50 meters from building (as directed by Engineer Incharge)	50.00	Sqm
3	Removing the any type of tiles manually from wall/ dado without damaging brick wall or any adjacent structure surface including removing plaster, levelling the vertical surface, cleaning the site including downloading the debris & stacking the debris upto 50 meters from building (as directed by Engineer Incharge)	50.00	sqm
4	Removing the existing loose damaged brick bat coba waterproofing treatment from the top of the terrace /w.c/bath at any floor or sunk surface upto any thickness without making any damages to the roof slab with the use od sharp chisels,levelling and cleaning the roof surface for providing new specialised waterproofing treatment,lowering down the debris without causing dust nuisance stacking the debris upto 50m distance from building as directed.	10.00	Cum
5	Chipping and exposing the damaged RCC members with chisel & hammer and cleaning the rusted reinforcement and exposed surface by wire brush or mechanical device or any other established method and applying rust convertor (Rustkill A) of approved make and quality with cotton waste swab to reinforcement and allowing to dry the same for 24 hour, brushing of loose particles and applying first coat of rust preventive 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 H frame scaffolding, covering with plastic as directed. Cleaning and unloading the debris upto ground level.	100.00	Sq.m
6	Providing and applying an effective bond coat of Epoxy bonding agent manufactured by M/s. Krishna conchem, Dr. Fixit , Roff , Chembond or M.C. Bouchmey and hardner in the proportion of as per manufacture instruction (Base hardner) by using brush in multiples of coat as required to accommodate the whole thickness of PMM wherever required including double scaffolding upto any height wherever required on the surface of old concrete/required concrete. Note- The actual consumption of Epoxy bonding coat shall be measured for payment on weight basis . Challans of authorized dealer will be verified.	50.00	Kg

7	Providing and Placing in position Readymix Polymer mortar manufactured by M/s.Krishna Conchem, Dr.Fixit, Roff or M.C. Bouchmey, Chembond by adding water in the proportion of 1:0.14( Polymer mortar: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 double scaffolding 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)	500.00	Kg
8	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 including scaffolding 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.	30.00	Kg
9	Removing door and windows of any size and type with frame , mild steel / wrought iron grill work and stacking the same and taking away out of IIT campus for which 5% deduction will be made of schedule rate of this item. Etc. Complete	5.00	Nos
10	Removing flush door and glazed windows shutters carefully without damaging wooden frame of any size and stacking the same and taking away out of IIT campus etc. complete	5.00	Nos
11	Modification of existing door shutter by removing the door shutter and cutting the door shutter from bottom side up to 1/2" to 1 1/2" thick and refixing the same shutter after rectification, painting work with new brass hinges, screws etc. Complete.	10.00	Nos
12	Dismantling R.C.C. work manually/ mechanically including breaking concrete by chiselling, wedging etc., cutting the reinforcement, lowering down debris, stacking the serviceable materials and stacking the debris upto a distance of 50 metres or spreading as directed.	2.00	Cum
13	Pulling down burnt brickmasonry ( in cement mortar) with plaster including sorting out serviceable bricks lowering down at Ground level and stacking the same and debris separately up to a distance of 50 metres beyond building etc. complete.	2.00	Cum
14	Providing waterproof plaster in w. c. bath, 20mm thick for dado at any floor in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 1 kg per bag of cement of approved make and manufacturer and curing etc. complete.	10.00	Sqm
15	Providing waterproofing in W.C. and bath including brickbat coba in all position at any floor including all lead ,lifts including providing and laying 12mm bedding in cement mortar 1:3 on concrete slab & sides of sunken portion with waterproofing compound @ 1kg/per bag of cement laying brick bat coba of required thickness in cm 1:5 with waterproofing compound 1 kg/bag of cement grouting and finishing the top layer with 20mm thick brick bedding in cm mortar 1:3 with waterproofing compound 1 kg/per bag of cement and testing the treated portion for 48 hours by pond test and covering ten years guarantee on requisite stamp paper etc. Complete.	10.00	Cum
16	Providing waterproof bedding 25 mm thick for flooring of bath and W.C. at any floor, In cement mortar 1:3 using 1 kg of waterproofing compound of approved make and manufacturer per bag of cement including leveling curing etc. complete.	10.00	Sqm
17	Taking out C.I. / PVC nahani trap with connecting pieces from floor carefully and taking away the same out of IIT campus etc. Complete.	2.00	Nos

18	Providing and laying water proofing cement concrete flooring to terrace to average 50mm thick with 1:2:3 cement concrete laid to proper level and slope using silt free clear river sand including compaction, filling joints, adding recommended waterproofing admixtures @ 2% by weight of cement, marking lines to give appearances of tiles of 30cm x 30cm or other approved size laid diagonally / square, finishing with extra cement in any colour as directed, testing the roof by ponding with water for 14 days, providing waterproofing guarantee for 7 (seven) years in requisite non judicial stamp paper in favour of IITB including all lead and lift etc. complete.	10.00	Sq.m
19	Taking out following material with connecting pieces from floor/wall carefully without disturbing base floor/wall and taking away the same out of IIT campus with 5% rebate on completed item etc. Complete. a) wash basin	2.00	Nos
	Taking out following material with connecting pieces from floor/wall carefully without disturbing base floor/wall and taking away the same out of IIT campus with 5% rebate on completed item etc. Complete. b) European WC	5.00	No
	Taking out following material with connecting pieces from floor/wall carefully without disturbing base floor/wall and taking away the same out of IIT campus with 5% rebate on completed item etc. Complete. C) Flush tank	5.00	No
20	Removing the existing toilet fittings while the other cement related activities are in progress and refixing the same after the work gets completed. 1)Wash basin	5.00	Nos
	Removing the existing toilet fittings while the other cement related activities are in progress and refixing the same after the work gets completed. 2)Mirror 2' x 1-1/2' with new coach screw	5.00	Nos
21	Providing and fixing Orrisa type white glazed earthenware 580mm x 440 mm water closet pan of approved make and brand (Cera, Hindware or equivalent) including trap, cast iron soil and vent pipes upto the outside face of the wall including 100mm. diameter cast iron plug bend, cement concrete bedding, 10 litres capacity H.D.P.E. approved flushing cistern with fittings, inlet pipe with brass stop tap(Cico), brackets, 32mm. diameter galvanised iron heavy type flush pipe with fittings and clamps, painting to the exposed pipes and cutting and making good the walls and floors etc. complete. (excluding waterproof brick bat coba)	5.00	Nos
22	Providing and fixing European type white glazed earthenware 580mm water closet pan of approved make and brand (Cera, Hindware or equivalent) with PVC seat and lid with chromium plated brass hinges and rubber buffers including cast iron soil and vent pipes upto the outside face of wall and 100mm. diameter cast iron plug bend, 10 litres approved low level white PVC flushing cistern with all fittings, pipes and stop tap, brackets for fixing the low level flushing cistern, 32mm dia galvanised iron / PVC heavy type flush pipe with fittings and clamps, 20mm dia. PVC galvanised iron overflow pipe with mosquito proof coupling, and exposed pipes and cutting and making good walls and floors etc. complete as directed.	5.00	Nos
23	Providing internal cement plaster 12mm thick in a single coat in Cement mortar 1:4 without neeru finish to concrete or brick surface in all positions at any floor and at any height including scaffolding, and curing complete cement.	50.00	Sq.m
24	Providing internal cement plaster 20mm thick in Single coat in cement mortar 1:4 without neeru finish to concrete or brick surface in all positions at any floor and at any height including scaffolding and curing complete.	50.00	Sqm
25	Providing and applying white cement based Birla make wall care putty with uniform thickness upto 1.5mm over the existing internal cement plaster in proper line / level including preparing the wall surface for the application of wall care putty etc. including scaffolding all complete as directed.	50.00	Sqm

26	Providing sand face plaster externally to concrete stone or brick surface at any height using approved screened sand including preparing the base, watering and applying base coat of 15 to 20mm thick in cement mortar 1:4 using water proofing compound at the rate of 1 kilogram per cement bag and curing the same for not less than two days and making the surface of base coat rough to receive the sand faced treatment 8 to 10mm thick in cement mortar 1:4 and finishing the surface by taking out grains and curing for 14 days and double scaffolding etc. Complete.	20.00	Sqm
27	Providing second class burnt brick masonry with conventional / I.S. Type bricks in cement mortar 1:6 in superstructure at any floor and any height including striking joints, racking out joints, watering and double scaffolding wherever required etc. complete.	2.00	Cum
28	Providing uncoursed rubble masonry of trap stones in cement mortar 1:6 in foundation and plinth of inner wall including bailing out water by pumping with suitable pumps, striking joints on unexposed faces and watering complete, including providing header stones @ 1 header per sqm. to the full thickness of wall, providing weep holes, with 100mm dia A. C. pipes if required in walls etc. Complete	2.00	Cum
29	Providing and fixing 18 mm thick gang saw cut, mirror polished granite , pre moulded and prepolished, machine cut for kitchen platforms, vanity counters, doors and windows cladding , sills, shelf, facias and similar locations at any floor of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 fine sand) or in neat cement as required, 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. a) area of slab upto 0.5 m <sup>2</sup>	20.00	Sqm
30	Providing and fixing 18 mm thick gang saw cut, mirror polished granite , pre moulded and prepolished, machine cut for kitchen platforms, vanity counters, doors and windows cladding , sills, shelf, facias and similar locations at any floor of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 fine sand) or in neat cement as required, 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. a) area of slab over 0.5 m <sup>2</sup>	20.00	Sqm
31	Providing and laying nonskid ceramic tiles at any floor of Johnson & Johnson /Nitco/ Kajaria/ Bell/ Somani for flooring approved by IITB required size upto 400mm x 400mm quality, brand and shade as available in market on cement mortar 1:4 bedding using white cement pigments finished to levels slope or plumb as required including cutting of tiles. Curing, acid washing etc. all complete.	20.00	sqm
32	Providing and laying at any floor ceramic tiles Johnson & Johnson /Nitco/ Kajaria/ Bell/ somani for flooring approved by IITB required size 400mm x 400mm and above size upto 600x600mm quality, brand and shade as available in market on cement mortar 1:4 bedding using white cement pigments finished to levels slope or plumb as required including cutting of tiles. Curing, acid washing etc. all complete.	20.00	Sqm
33	Providing and fixing coloured ceramic tiles at any floor of size 300mmx200mm of approved make & brand (Johnson & johnson, Nitco, Khajaria or equivalent ) about 5 to 6mm thick for dado and skirting in required position with neat cement on existing plaster cement mortar including filling joints with neat cement slurry mixed with pigment to match the colour of tiles, curing, rubbing and cleaning etc. complete.	50.00	Sqm
34	Providing and fixing coloured ceramic tiles at any floor height of size 450mmx300mm of approved make and brand (Johnson & johnson, Nitco, Khajaria or equivalent ) about 8 to 10 mm thick for dado and skirting in required position on neat cement paste including filling joints with neat cement slurry mixed with pigment to match the colour of tiles, curing, rubbing and cleaning etc. complete.	50.00	sqm



35	Providing and casting in situ cement concrete M-25 of trap metal for R.C.C Beams and Lintels at any floor with scaffolding / step ladder as per detailed designs and drawings or as directed including centering, formwork, compacting, finishings the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing. ( Excluding steel reinforcement )	3.00	Cum
36	Providing and laying in situ plain cement concrete M-20 of trap metal for foundation and bedding including bailing out water manually, wherever required , formwork, compacting and curing,as directed.	5.00	Cum
37	Providing and fixing in position T.M.T bar reinforcement at any floor of various diameters for R.C.C. slabs, beams,columns, staircases, chajjas, lintels, parapets, coping, etc. as per detailed designs, drawing and schedules including cutting, bending, hooking the bars, binding with wires or tack welding if necessary and supporting as required and as directed.	50.00	kg
38	Providing and fixing mild steel grill work for window, ventilator at any floor including scaffolding weighing 15 kg per sqm as per drawing or approved pattern including necessary fabrication ,welding and painting with approved steel primer all complete.	20.00	Sqm
39	Add for extra weight or deduct for less weight of 15kg/m2 of M/S. Grills for fabricating such as cutting, shaping, riveting, painting with primer etc. mild steel for grill works including welding.	50.00	Kg
40	Providing and fabricating structural steel works in rolled sections like joints, channels, angles, tees etc. as per details designs & approved pattern including fixing in position with connecting plates, braces and welding, riveting, bolting as necessary including primer coat painting etc. complete.	50.00	Kg
41	Providing and fixing 35mm FRP door manufactured by M/s. Advance Company including brass hinges, both side brass handles, brass aldrop, tower bolt, brass tadi patti etc. complete at any location in residential building as directed.	10.00	Sqm
42	Providing and fixing 3" Anchor Fastener wherever necessary etc. Complete.	5.00	nos
43	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 or as directed and of Jindal make.	5.00	Sq.m
44	Providing and fixing aluminium louvered ventilators using 50mm x 25mm x 16 gauge (not less than 0.593 kg/mtr) aluminium box frame anodized to 15 microns 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 (Aluminium section anodized to 15 microns , Jindal make or as directed.	5.00	Sqm

45	Providing and fixing in position fixed glazing using 63mm x 38mm x 1.65mm (0.942 kg/rmt) 15 micron / powder coated anodized aluminium partition section for frame with screws and providing 5mm thick clear plate glass fixed to the above frame using glazing clip with rubber gaskets, filling all gaps with appropriate fillers etc. all complete.(Jindal Make)	5.00	sqm
46	Providing and fixing in position two track aluminium sliding windows using track section of size 61mm x45mm x1.3mm(1.055kg/rmt) thick for bottom, section of size 61mmx31mmx1.3mm(0.659kg/rmt)for side & top .The shutter should be of bearing bottom of size 40mm x18mmx1.25mm (0.417kg/rmt)thick, top member of size 40mm x 18mm x 1.20mm(0.475kg/rmt) thick , Interlocking section of size 43mm x 27mm x 1.30mm (0.558kg/rmt)thick , handles section of size 43mm x 18mm x 1.30mm(0.424kg/rmt) thick including providing and fixing SS304 grade flyproof mesh in the shutter using aluminium U clip, approved quality minimum two nos. PVC rollers for each shutter,necessary locks,handles,PVC liningand other required fitting s etc. complete as directed by engineer incharge. (all aluminium section should be 15 micron anodized/ section of Jindal make or as directed.)	5.00	Sq.m
47	Providing and fixing in position two track aluminium sliding windows using rectangular box section of size 63mmx38mmx2.00mm (1.054kg/mtr) for outer frame, bottom section of size 61 mm x 45 mm x 1.3 mm (1.055kg/mtr) thick for bottom, sections of size 61 mm x 31mm x 1.3 mm (0.659kg/mtr) thick for sides and top. The shutter should be of bearing bottom of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , top member of size 40 mm x 18 mm x 1.20 mm (0.475kg/mtr) thick, Interlocking section size of 43 mm x 27 mm x 1.30 mm (0.558kg/mtr) thick and handle section of size 43mm x 18 mm x 1.30 mm (0.424kg/mtr) thick including providing and fixing S.S. 304 Jali flyproof mesh in the shutter using u channel approved quality minimum two nos.PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings,shutter width should not be more than 0.6m etc. complete as directed by Engineer in charge.( Note: All aluminium sections and fitting are 15 micron anodized Jindal make or as directed).	5.00	Sq.m
48	Providing and fixing in position two track aluminium sliding windows using drain bottom section or equivalent of size 61 mm x 45 mm x 1.3 mm(1.055kg/rmt) thick for bottom, sections of size 61 mm x 31mm x 1.3 mm (0.659kg/rmt)thick for sides and top. The shutter should be of bearing bottom of size 40 mm x18 mm x 1.25mm(0.417kg/rmt) thick , top member of size 40 mm x 18 mm x 1.20 mm (0.475kg/rmt)thick, Interlocking section size of 43 mm x 27 mm x 1.30 mm(0.558kg/rmt) thick and handle section of size 43mm x 18 mm x 1.30 mm(0.424kg/rmt) thick including providing and fixing 5mm thk. glass (plain or frosted)in the shutter using rubber gasket, approved quality minimum two nos.PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, etc. complete as directed by Engineer in charge.( Note: All aluminium sections and fitting are 15 micron anodized Jindal make or as directed).	5.00	Sq.m
49	Providing & fixing in position extruded modular aluminium section two track sliding window mounted on rectangular frame of size 63mm x 38mm x 2.00mm thick (1.054 kg/Rmt) made up of two track drain bottom section of size 61mm x 45mm x 1.3mm thick (1.055 kg/Rmt) and top and sides sections of size 61mm x 31mm x 1.3mm thick (0.659 kg/Rmt) The shutter should be of bearing bottom of size 40mm x 18mm x 1.25 mm (0.417 kg/Rmt) top member of size 40mm x 18mm x 1.20mm thick (0.475 kg/Rmt) Interlocking section size of 43mm x 27mm x 1.30mm thick (0.558 kg/Rmt) and handle sectionof size 43mm x 18mm x 1.30 mm thick (0.424kg/Rmt),selected quality 5mm thick clear glass (plain or frosted) to be fixed in shutter with neoprene gasket with approved quality PVC rollers, necessary locks, handles PVC lining and wooden encasement wherever necessary etc. Complete. (All aluminium sections and fitting should be 15 micron anodized and Jindal make or as directed).	5.00	sqm

50	Providing and fixing in position three track aluminium sliding windows using sections of size 92 mm x 31mm x 1.3 mm (0.933kg/mtr) thick for bottom, sides and top. The shutter comprising of bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.469kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing S.S 304 grade flyproof mesh in the shutter using aluminium U clip, approved quality minimum two nos.PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, provision for fixing A.C. units (if required) etc. complete as directed by Engineer in charge.( Note: All aluminium sections and fitting are 15 micron anodized and of Jindal make)	5.00	Sq.m
51	Providing and fixing in position three track aluminium sliding windows using rectangular box section of size 100mmx40mmx1.30mm (0.976kg/mtr) for outer frame, drain bottom section of size 92 mm x 45 mm x 1.05 mm (1.659kg/mtr) thick for bottom, sections of size 92 mm x 31mm x 1.3 mm (0.933kg/mtr) thick for sides and top. The shutter comprising of bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.469kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing S.S. 304 Jali flyproof mesh in the shutter using u channel approved quality minimum two nos PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, shutter width should not be more than 0.6m etc. complete as directed by Engineer in charge.( Note: All aluminium sections and fitting are 15 micron anodized and of Jindal make)	5.00	Sq.m
52	Providing & fixing in position extruded modular aluminium section three track sliding window made up of three track drain bottom section of size 92mm x 45mm x 1.05mm thick (1.659 kg/Rmt) three track and top and side sections of size 92mm x31mm x 1.30mm thick (0.933 kg/Rmt) The shutter comprising of bottom and top member of size 40mm x 18mm x 1.25mm thick (0.417 kg/Rmt) interlocking section of size 40mm x18mm x 1.10mm thick (0.469 kg/Rmt)handles section of size of 40mm x 18mm x1.25mm thick (0.417 kg/Rmt) with 5mm thick glass (plain or frosted) fixed in shutter with approved quality neoprene, gasket, P.V.C lining etc. Complete. ( excluding frame.( Note: All aluminium sections and fitting are 15 micron anodized and Jindal make)	5.00	Sq.m
53	Providing & fixing in position extruded modular aluminium section three track sliding window mounted on rectangular frame of size 100mm x 40mm x 1.30mm thick (wt 0.933 kg/Rmt) made up of three track drain bottom section of size 92mm x 45mm x 105mm thick (1.659 kg/Rmt) three track top and side of size 92mm x31mm x 1.3mm thick (0.933 kg/Rmt) The shutter comprising of bottom and top member of size 40mm x 18mm x 1.10mm thick (0.469 kg/Rmt)handle sides of size 40mm x18mm x 1.25mm thick (0.417 kg/Rmt)with 5.0mm thick glass (plain or frosted) fixed in shutter with approved quality neoprene gasket, PVC rollers, locks, handles, PVC lining wherever necessary etc. Complete. ( Note: All aluminium sections and fitting are 15 micron anodized and of Jindal make)	5.00	Sq.m
54	Providing & fixing in position extruded modular aluminium section three track sliding window mounted on rectangular frame of size 100mm x 40mm x 1.30mm thick (wt 0.933 kg/Rmt) made up of three track drain bottom section of size 92mm x 45mm x 105mm thick (1.659 kg/Rmt) three track top and side of size 92mm x31mm x 1.3mm thick (0.933 kg/Rmt) The shutter comprising of bottom and top member of size 40mm x 18mm x 1.10mm thick (0.469 kg/Rmt)handle sides of size 40mm x18mm x 1.25mm thick (0.417 kg/Rmt)with 2 shutter of 5.0mm thick glass (plain or frosted) fixed in shutter with approved quality neoprene gasket, PVC rollers, locks, handles, PVC lining and one shutter with S.S. 304 Jali flyproof mesh in the shutter using u channel approved quality minimum two nos PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, shutter width should not be more than 0.6m etc. complete as directed wherever necessary etc. Complete. ( Note: All aluminium sections and fitting are 15 micron anodized and of Jindal make)	5.00	Sq.m

55	Providing & fixing in position extruded modular aluminium section three track sliding window made up of three track drain bottom section or equivalent of size 92mm x 45mm x 105mm thick (1.659 kg/Rmt) three track top and side of size 92mm x 31mm x 1.3mm thick (0.933 kg/Rmt) The shutter comprising of bottom and top member of size 40mm x 18mm x 1.10mm thick (0.469 kg/Rmt) handle sides of size 40mm x 18mm x 1.25mm thick (0.417 kg/Rmt) with 2 shutter of 5.0mm thick glass (plain or frosted) fixed in shutter with approved quality neoprene gasket, PVC rollers, locks, handles, PVC lining and one shutter with S.S. 304 Jali flyproof mesh in the shutter using u channel approved quality minimum two nos PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, shutter width should not be more than 0.6m etc. complete as directed wherever necessary etc. Complete. ( Note: All aluminium sections and fitting are 15 micron anodized and of Jindal make)	5.00	Sq.m
56	Providing and fixing in position aluminium 15 micron anodized openable window with stainless steel flyproof mesh of 304 grade having aluminium powder coated " L" pipe section 38mm x 25mm (0.45kg/rmt) for frame and shutter frame of 38mm x 18mm (0.45kg/m) aluminium section and fixing the stainless steel mesh with U channel with screws including necessary fitting and fixtures such as two numbers stainless hinges, stainless steel handle one number and magnet one number or tower bolt etc. complete as directed. ( All aluminium section of Jindal make)	10.00	Sq.m
57	Providing and fixing openable shutter made up of aluminium anodized 15 micron handle section 38mm x 18mm( 0.45kg/rmt) or near available sections on top, bottom and sides, P/F 4mm thick hardner sheet of Bckelite of desire shead and pattern, P/F stainless steel hinges 75mmx35mm(2 nos.) for each shutter,1nos. of S.S tower bolt on each shutter,1no handle(S.S) for each shutter, magnet etc. including fixing the shutter over the L pipe section of 38mmx25mmx1.5mm (45kg/rmt) with screws in line and level,rectification of all damages etc. complete as directed. ( All aluminium section of Jindal make)	10.00	Sq.m
58	Providing and fixing with anodising or powder coating aluminium section for door frame, windows, partitions and any other require work etc. of required size including fixing with required fittings such as screws and other required fittings including fixing in proper alignment, rectifying all damaged, P/F wood inside frame for fixing hinges (if required) etc. completed as directed.	50.00	kg
59	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	10.00	nos
60	Providing and fixing plywoods 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 . a)4mm thick commercial	10.00	Sq.m
	Providing and fixing plywoods 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 . b) 18mm thick commercial	5.00	Sq.m
	Providing and fixing plywoods 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 . c) 18mm thick marine plywood	5.00	Sq.m
61	Providing and fixing magnetic catcher of approved quality in cupboard / ward robe shutters, including fixing with necessary screws etc. complete a) Triple strip vertical type	10.00	each
	Providing and fixing magnetic catcher of approved quality in cupboard / ward robe shutters, including fixing with necessary screws etc. complete b) Double strip (horizontal type)	10.00	each

62	Providing and fixing 10cm dia cast iron nahani trap with fixed SS nahani trap jali, cast iron plug bend and piece of cast iron pipe upto plug bend including removing old the nahani trap including breaking brickwork/concrete and redoing the same etc, complete contractor will be allowed to take away old nahani trap and for which 5% deduction will be made of schedule rate of this item. etc. Complete.	10.00	Nos
63	Providing and fixing white urinal parryware or equivalent make including necessary fittings such as L shaped hooks, spreader and flushing system and bottle trap of Jaquar, Click Clack Waste coupling of jaquar, connection pipe upto trap or pipe etc. complete as directed.	5.00	No
64	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	No
65	Providing and fixing ISI 1729/2002 grade 75mm dia. cast iron waste water pipes with lugs 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 praportion and two coats of anti corrosive paint including fixing the pipe on walls by means of nails driven through lugs in wooden holders / battens including removing the existing pipe if necessary and conveying and stacking taking away the same out of IIT campus , necessary scaffolding complete or as directed.	10.00	Rmt
66	Providing and fixing ISI 1729/2002 grade 100 mm dia. cast iron soil pipes with necessary fittings such as bends, tees, single junctions, double junctions, slotted vent, offsets on walls or in the ground including filling joints with cement mortar 1:2 and two coats of anti corrosive paint including fixing the pipe on walls by means of nails driven through lugs in wooden holders / battens including removing the existing pipe if necessary and conveying and stacking taking away the same out of IIT campus , necessary scaffolding complete or as directed.	10.00	Rmt
67	Providing and laying ....mm diameter I.S.I. approved heavy type C class galvanized iron pipes 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, connecting the lines with old / new pipe lines / fittings / fixtures etc as required and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including removing the existing pipe if necessary and conveying and stacking taking away out of IIT campus old pipes and for which 5% deduction will be made of schedule rate of this item. ,necessary scaffolding etc. or as directed etc. Complete. a) 15 mm dia	20.00	Rmt
	Providing and laying ....mm diameter I.S.I. approved heavy type C class galvanized iron pipes 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, connecting the lines with old / new pipe lines / fittings / fixtures etc as required and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including removing the existing pipe if necessary and conveying and stacking taking away out of IIT campus old pipes and for which 5% deduction will be made of schedule rate of this item. ,necessary scaffolding etc. or as directed etc. Complete. b) 20mm dia	20.00	Rmt
	Providing and laying ....mm diameter I.S.I. approved heavy type C class galvanized iron pipes 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, connecting the lines with old / new pipe lines / fittings / fixtures etc as required and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including removing the existing pipe if necessary and conveying and stacking taking away out of IIT campus old pipes and for which 5% deduction will be made of schedule rate of this item. ,necessary scaffolding etc. or as directed etc. Complete. c) 25mm dia	20.00	Rmt

	Providing and laying ....mm diameter I.S.I approved heavy type C class galvanized iron pipes 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, connecting the lines with old / new pipe lines / fittings / fixtures etc as required and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including removing the existing pipe if necessary and conveying and stacking taking away out of IIT campus old pipes and for which 5% deduction will be made of schedule rate of this item. ,necessary scaffolding etc. or as directed etc. Complete. d) 40mm dia	20.00	Rmt
	Providing and laying ....mm diameter I.S.I approved heavy type C class galvanized iron pipes 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, connecting the lines with old / new pipe lines / fittings / fixtures etc as required and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including removing the existing pipe if necessary and conveying and stacking taking away out of IIT campus old pipes and for which 5% deduction will be made of schedule rate of this item. ,necessary scaffolding etc. or as directed etc. Complete. e) 50mm dia	10.00	Rmt
	Providing and laying .....mm diameter I.S.I approved heavy type C Class galvanized iron pipes of Jindal or Zenith make having weight as per IS specification in trenches etc. with elbows, tees, reducers, enlargers, plugs, etc. including connecting the lines with old / new pipe lines / fittings / fixtures etc as required and filling trench with excavated soil and applying primer and two coats of oil painting including removing the existing pipe if necessary and conveying and stacking taking away out of IIT campus old pipes and for which 5% deduction will be made of schedule rate of this item., necessary scaffolding etc. or as directed etc. complete. a) 40 mm dia	10.00	Rmt
	Providing and laying .....mm diameter I.S.I approved heavy type C Class galvanized iron pipes of Jindal or Zenith make having weight as per IS specification in trenches etc. with elbows, tees, reducers, enlargers, plugs, etc. including connecting the lines with old / new pipe lines / fittings / fixtures etc as required and filling trench with excavated soil and applying primer and two coats of oil painting including removing the existing pipe if necessary and conveying and stacking taking away out of IIT campus old pipes and for which 5% deduction will be made of schedule rate of this item., necessary scaffolding etc. or as directed etc. complete. b) 50 mm dia	10.00	Rmt
68	Providing and fixing ISI approved heavy type 15 mm dia brass stop tap(seiko, techo make) including socket, union nut etc. Complete.	5.00	Nos
69	Providing and fixing screw down .... of gun metal Gate Valve bearing I.S.I. Mark including socket, union nut etc. Complete. a) 20mm dia	5.00	Nos
	Providing and fixing screw down .... of gun metal Gate Valve bearing I.S.I. Mark including socket, union nut etc. Complete. b) 25mm dia	5.00	nos
70	Providing and fixing new sanitary fittings with new fixtures , removing old broken fittings wherever existing. a) ¼" Flexible pipe – 3 feet long	5.00	No
	b) 1) ½" PVC connection 2 feet long	5.00	No
	b) 2) ½" PVC connection 1½ feet long	5.00	nos
	c) S.S. Grating 1) 4" dia	5.00	No
	c) S.S. Grating 2) 5" dia	5.00	nos

	d) Nirali Sink Jali	5.00	Nos
71	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete including scaffolding as per direction of Engineer in Charge. Exposed on wall, a) for 40mm Dia pipe line	10.00	Rmt
	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete including scaffolding as per direction of Engineer in Charge. Exposed on wall, b) 25mm dia line	10.00	Rmt
	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete including scaffolding as per direction of Engineer in Charge. Exposed on wall, c) 20mm dia line	10.00	Rmt
72	Providing and fixing I.S.I. approved heavy type C class galvanized iron pipes having weight as per IS specification complete with G.I. fittings and clamps, I/c making good the walls etc. concealed pipe , including painting with anti corrosive bitumastic paint , cutting chases and making good the wall a) 15mm dia pipe	20.00	Rmt
73	Providing and fixing 600 x 450mm x 6mm thk mirrors of approved Indian quality copper plated with 10mm (3/8") thick plywood backing, in the masonry etc. Make Modi Guard/Saint-Gobain etc. complete. contractor will be allowed to take away old mirror if available and for which 5% deduction will be made of schedule rate of this item.	2.00	each
74	Providing and fixing 6mm thk Glass shelf 125mm (5") wide and 610mm (24") long with necessary chromium plated brackets providing teak wood gutties etc. Make Modi Guard/Saint-Gobain etc. complete. contractor will be allowed to take away old glass shelf if available and for which 5% deduction will be made of schedule rate of this item.	2.00	each
75	Providing & fixing 40mm dia. PVC pipe (heavy duty) with all fittings & fixtures making connection to old & new pipe line etc. complete as directed by Engineer.	5.00	each
76	Providing and fixing white glazed earthenware wash hand basin of approved brand (Hindware/Cera/ parryware) of 55cm x 40cm size including one cold water pillar tap of jaquar , brackets, rubber plugs and brass chain, stop tap of jaquar and necessary pipe connection including polyethylene waste water pipe and trap	2.00	No
76 (b)	b) Same as above but for Coloured glazed of approved brand (Hindware/Cera/ parryware) of size 55cmx40cm Wash basin	2.00	No
77	Providing and fixing white glazed earthenware wash hand basin of approved brand (Hindware/Cera/ parryware) of 45 x 30 cm size including one cold water pillar tap of jaquar , brackets, rubber plugs and brass chain, stop tap of jaquar and necessary pipe connection including polyethylene waste water pipe and trap	2.00	No
77 (b)	b) Same as above but for Coloured glazed of approved brand (Hindware/Cera/ parryware) of size 45cmx30cm Wash basin	2.00	No
78	Providing and fixing chromium plated towel rod 20 mm dia and 75 cm. in length including all accessories complete.	2.00	No
79	Providing and fixing 10 cm dia chromium plated brass shower rose to 15 mm dia. Supply pipe including necessary G.I. Bend and socket complete.	5.00	Nos

80	Providing and fixing solid plastic seat with lid for european type W.C. pan complete with require fittings and fixtures etc. complete as directed. a) White solid plastic seat with lid	2.00	nos
81	Providing and fixing cement bonded wood particle board (bison panel) of 20mm thick to chajja at any floor, providing suitable hole for fixing nuts and bolts including making suitable groove on plaster and vatta, proper slope double scaffolding wherever required complete as directed.	5.00	Sqm
82	Scrapping the entire wall / ceiling surface thoughly with patra & sand paper, filling the holes with lambi / POP, Providing and applying one coat of seal cement primer of IITB approved brand, applying the entire area with readymade wall putty, covering the floor, windows, instruments during priming coat as required etc. Complete.	1000.00	Sq.m
83	Providing and applying 2nd coat seal cement primer over the prepared surface of walls / ceiling, including stepladder / scaffolding and cleaning the surface as directed.	1000.00	Sq.m
84	Providing and applying two coats of 1st quality Acrylic distemper of approved brand quality colour and shade (of Asian paints , Berger or any other approved product of ICI or Goodlass, Nerolac) on old/new wall surfaces as per manufacturers specification in two coats & necessary levelling to undulated surfaces & preparing the surfaces smooth with the readymade putty – medium finish & POP wherever required with the help of step ladder & cleaning the stains on flooring surfaces etc. all complete as directed.	300.00	Sqm
85	Providing and applying roller finish Acrylic plastic emulsion paint of of IITB approved manufacturer and of desired colour and shade to old / new ceiling & wall surfaces in two coats with the use of stepladder, preparing the surface smooth by applying readymade Acrylic wall putty again if required, with the help of step ladder etc all complete as directed.	700.00	Sq.m
86	Providing and applying two coats of synthetic enamel paint of IITB approved brand (Asian, Berger, ICI, Jenson & Nicholson, Goodlass Nerolac) & desired shade to old new wood work, steel grill work with the use of step ladder, scaffolding if necessary, cleaning and preparing surface by solvent, degreasing and derusting by manul scrapping, fiiling holes with lambi / palti leavelling the surface cleaning etc. Complete.	200.00	Sqm
87	Providing and applying one priming coat over steel and other metal surfaces including preparing of the surface by thoroughly cleaning oil, grease, dirt and other foreign matter with wire brushing, fine fire steel wool,and sand paper, scaffolding etc. Complete.	100.00	Sqm
88	Providing and applying one priming coat to wood and wood based surface including preparing of the surface by thoroughly cleaning oil, grease, dirt and other foreign matter with wire brushing, fine fire steel wool,and sand paper, scaffolding etc. Complete.	100.00	Sqm
89	Providing and applying two coat of synthetic enamel paint of IITB approved brand (Asian, Berger, ICI, Jenson & Nicholson, Goodlass Nerolac) and shade to ceiling fans with the use of step ladder including scrapping cleaning etc. Complete.	10.00	Nos
90	Providing and applying one coat of acrylic primer and two coats of pure Acrylic exterior paint of IITB approved manufacturer as per manufacturer's specification on old/new plastered surface at any height any floor , stone work surface as per manufacturer's specification including cleaning the surface thoroughly with coir brush, watering , scaffolding the surface etc. complete and as directed by this office. (only plain area will be measured )	200.00	Sqm



91	Providing and applying exterior coating for walls of multistoried building including mechanical cleaning of the external surface and treating surface in sound, clean and free from dirt, oil and other loose material and may be done with vacuum cleaning if required. All surface cracks upto 5 mm width will be filled up with Dr. Fixit Crack X paste or similar material. The external surface will be primed with Dr. Fixit Primeseal (or equivalent BASF/ FOSROC/ STP) diluted with potable water in the ratio of 2:1 by volume prior to application of Dr. Fixit Raincoat waterproof coat. Allow it to dry for at least 2 to 3 hours and then apply Dr. Fixit Raincoat waterproof coat or equivalent (BASF/ FOSROC/ STP) having DFT of 100-120 micron DFT. Apply second coat of Dr. Fixit raincoat Select Top Coat with interval of 6-8 hours to achieve DFT of 60-70 microns. Apply with roller or spray allow it to air cure for 7 days. Do not dilute Dr. Fixit Raincoat waterproof Select top coat by any means. Work includes cleaning the surface thoroughly, watering the surface etc. complete including covering the floor, window glass with plastic sheet, removing & refixing existing grill while work in progress and as directed by this office. and work shall be guaranteed for 3 years by the contractor on requisite stamp paper. The material having following technical properties : Elongation of >100% as per ASTM D 412; Tensile strength 2.50Mpa per ASTM D 412, passes water resistance as per SS500 standard, complies to anti carbonation test as per EN 1062 part 6. (Double steel scaffolding will be paid in respective item)	25.00	sqm
92	Providing and fixing 2nd class country teakwood frame for doors, windows, ventilators at any height any floor by using wood of 95mm x 70mm, 120mm x 70mm, 145mm x 70mm (finished size) or other required size as per site condition including all moulding, rebating, hold fast and finishing applying coal tar on the external faces of frame, wood primer and two coats of oil paint etc. Complete.	1.00	Cum
93	Shifting all the material inside the flats to any where at the required location (vacant flat) in IITB campus & relocating the same to the original flats as per original arrangement etc. complete or as directed	2.00	per job
94	Removing door / windows / cupboard shutter & frame removing shutters & old fittings keeping them aside and taking out the old dilapidated frame out of campus, providing wraughting to shape & fixing C. P. Teakwood frame of same size & design as existing finished size (95mm x 70mm, 70mm x 32mm) applying one coat of coal tar to the backside of members fixing new M.S. Hold fasts 4 Nos. for windows and 6 Nos. for doors with screws fixing the frame in proper position on the wall refixing the removed shutters with new brass heavy butt hinges 100mm for doors & 75mm for windows or of same size & number as existing fittings including painting two coats of synthetic enamel paint over a coat of primer on all exposed surfaces of frame rectifying all defects to original specification all complete as directed	1.00	Cum
95	Providing and fixing solid core flush door in single or double leaf 32mm thick of commercial type of exterior grade, approved commercial plywood facing both side without glazing and venetians, all necessary beads, moulding and lipping, 300mm long 2 nos. decorative type S.S handles for each shutters, 8" long stainless steel tower bolt 1 no for each shutter, 6 lever Godrej mortise lock with triplicate keys and other required fittings etc. complete (without frame). (fittings will be approved by Engineer in charge before fixing)	4.20	Sq.m
96	Providing and fixing solid core flush door in single or double leaf 32mm thick of commercial type of exterior grade, approved commercial plywood facing both side without glazing and venetians, all necessary beads, moulding and lipping, 300mm long 2 nos. decorative type S.S handles for each shutters, 8" long stainless steel tower bolt 1 no for each shutter, 12" long stainless steel heavy duty aldrop and other required fittings etc. complete (without frame). (fittings will be approved by Engineer in charge before fixing)	4.20	Sq.m

97	Providing and fixing country teakwood 2nd class fully glazed single / double leaf windows / ventilators rectangular in shape adopting section of 70mm x 32mm for styles and rails as per drawing including providing and fixing 4mm thick plain / bajiri glass with teakwood beading, fixing the window / ventilator shutters with 75mm size butt hinges (Brass oxidized) 2 Nos. for each shutter, aluminium towerbolt 100mm size one for each shutter, aluminium handle 125mm one for each shutter, hooks & eyes 200mm one for each shutter, applying two coats of synthetic enamel paint of approved brand and shade over a coat of wood primer including removing the existing shutter and taking away out of IIT campus for which 5% deduction will be made from this rate etc. Complete .etc. Complete.	5.00	sqm
98	Providing and fixing single leaf or double leaf panelled door shutters 35mm thick as per detailed drawings consisting of country cut teak wood styles, top rail, frieze rail of 95mm x 35mm, lock rail of 145mm x 35mm and bottom rail of 245mm x 35mm and insert panels of 12mm thick, marine plywood generally conforming to IS: 710 with heavy duty M.S. pressed butt hinges bright finished of required size with necessary screws, P/F 300mm long heavy duty stainless steel aldop, other require fittings and fixtures etc. complete.	4.20	sqm
99	Providing & fixing solid core flush door in single leaf 32mm thick commercial plywood facing both side without glazing and venetians, all necessary beads, moulding and lopping , with 1mm thk laminate on both sides including 6" long 2 nos S.S. handle, 8" long S.S. tower bolt 1nos, 6 lever Godrej mortise lock with triplicate keys, 4" long brass hinges (heavy type) and other required fittings etc. complete (without frame)	4.20	Sq.m
100	Providing and fixing 16mm dia. mild steel round bars at 100mm c/c to windows / ventilators / fanlights, fixing mild steel Flats 40 x 6mm in frame, cutting a recess to fit the flat exactly including drilling the holes to flats to pass the bars through it 25mm inside in wooden frame including providing one central mild steel flat of 40 x 6mm by drilling holes (when bar length exceeds 75cm) etc. Complete.	10.00	kg
101	Disposing debris, loose stones, boulders, concrete pieces broken and dry leaves etc. collected and stacked as directed including loading in trucks, transporting out of IIT Campus including obtaining all approval of BMC competants authorities for disposing off on to their approved location. The debris are to be removed from site within 72 hours from stacking (30% voids will be deducted from actual stack measurement/ truck measurement for debris, loose stones, boulders etc.).	20.00	Cum
102	Dismantling plain cement concrete work at any height & any floor including breaking concrete by chiselling, wedging etc., lowering down debris, stacking the serviceable materials and stacking the debris upto a distance of 50 metres from building or spreading as directed.	1.00	Cum
103	Providing second class burnt brick masonry at any height & any floor with Conventional / I.S. Type bricks in cement mortar 1:4 in half brick thick wall including mild steel longitudinal reinforcement of 2 bars of 6 mm diameter/2 hoop iron strips 25 mm X 1.6 mm at every third course properly bent and bonded at ends, scaffolding , racking out joints and watering etc. Complete.	5.00	Sqm
104	Providing and laying cement concrete flooring 40mm thick with M-20 cement concrete laid to proper line level and slope in alternate bays including compaction, filling joints, marking lines to give the appearance of tiles of 30cm x 30cm or other size, laid diagonally / square, etc., finishing smooth (with extra cement) in any colour as directed, and curing complete.	10.00	sqm
105	Providing and fixing Kadappa stone slab for kitchen platform/clading of approved type and design 25 to 30 mm thick in cement mortar 1:4 including providing and fixing border patti on front edge, filling joints, curing, cleaning etc. Complete.	5.00	sqm
106	Providing and fixing Kadappa stone slab for tank platform of approved type and design 25 to 30 mm thick cleaning etc. Complete.	5.00	Sq.m

107	Providing and laying 6mm thick plain glass fibre sheet of translucent top side tissue material as per IS 12866, resin with U.V stablized isophthalic base , light, transmission approved manufacture and desired shade including laying on surface , cleaning etc. All directed.	10.00	Sq.m
108	Providing and laying vitrified tiles for flooring of approved shade and pattern with required finish ( mirror / Mat ) and decorative type Nitco make premium quality or kajaria make in double charge finish or Somani equivalent quality having sizes not less than 600 x 600 mm and 8 to 10 mm thickness , confirming to IS. 15622 (floor tiles within basic cost of material Rs.70/sft) in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete as directed	300.00	Sq.m
109	P/L vitrified tiles for flooring of size not less than 600x600mm and 8 to 10 mm thick of approved shade and pattern ,with required finish (mirror / Mat ) and decorative type of approved make (Nitco make premium quality or Kajaria make double charge finish or Somani equivalent quality) as available in market Fixing with cement based high polymer modified quick set tile adhesive like fevimate(water based) conforming to IS: 15477, using 5kg adhesive per sqm of tile area, in average 5mm thickness. 'white cement pigments finished to levels slope or plumb as required including cutting of tiles. Curing, acid washing etc. all complete as directed. ( Floor tiles basic cost up to Rs. 70 per sft.)	200.00	Sq.m
110	Providing and laying vitrified tiles for skirting / dado of approved shade and pattern with required finish and quality as per Item no. 102 as above laid on a plaster surface with neat cement, filling joints, curing and clearing etc. complete as directed	20.00	Sq.m
111	Removing & replacing in position Godrej night latch without damaged door & frame of approved make, quality and pattern with automatic locking arrangement, duplicate keys etc. complete as directed.	5.00	No
112	Replacing by providing and fixing 5 mm thick plain/bajri glass of doors and windows etc. including teakwood beading etc. Complete.	5.00	sqm
113	Providing and fixing fly proof stainless steel mesh of approved quality to windows,s, doors and any other location using teak wood or aluminium anodised section of require size with necessary fittings and fixtures etc. complete as directed.	5.00	Sq.m
114	Supplying new fittings with new screws, removing old broken fittings wherever existing. A) Door peep hole brass chromium plated.	6.00	Nos
	B) BUTT HINGES (heavy) Brass oxidized i) 100mm	6.00	Nos
	B) BUTT HINGES (heavy) Brass oxidized ii) 75mm	6.00	Nos
	F) TOWER BOLT Aluminum i) 150mm	2.00	Nos
	F) TOWER BOLT Aluminum ii) 100mm	2.00	Nos
	G) buffer stopper	2.00	Nos
	H) Stainless steel Aldrop	5.00	Nos
	I) Jaquar make Paper holder	2.00	Nos
	J) Jaquar continental series Soap dispenser with glass bottle	2.00	No
	K) Jaquar made Towel rack 600 mm long	2.00	No
	L) Sliding channel of kitchen trolley upto 2' long	5.00	pair
	M) Techno bib tap ( Min weight 400gm)	5.00	nos
	N)PVC gasket/ rubber lining with necessary fittings and fixtures	5.00	Rmt

	P) Jaquar health faucet set	5.00	per no
	Q) Hindware make Dual flush tank set	5.00	per no
	R) Hindware make normal flush tank set	5.00	per no
	S) Jaquar make corner glass shelf set	5.00	per no
	T) Jaquar make sink cock	5.00	per no
	U) Jaquar make soap dish holder	5.00	per no
115	Removing the existing damage plywood from cupboard shutters after removing the shutters from the frame or hinges providing and fixing new 3mm marine ply on the shutter with fevicol and necessary wire nails re fixing the shutters on the frame with new screws and painting with two coats of synthetic enamel paint over a coat of primer etc complete	5.00	Sqm
116	Making the wooden doors, windows etc. and all the fittings and fixtures in easily operational condition in a quarter by providing necessary screws, oiling the fixtures, removing rust etc. from fittings plaining the frames etc. all complete as directed.	10.00	Jobs
117	Easying the aluminium sliding windows by means of making freely operationable condition including cleaning the tracks, providing and fixing PVC rollers/ bearing (Heavy quality), concealed locks – 02 Nos etc. all required fittings for window of two track or three track etc. all complete as directed.	10.00	Per Nos.
118	Removing the existing kitchen trolley & refixing existing sliding channels with oling and greasing, welding existing broken SS round bars. Providing new screws after that refixing it including cleaning site etc. Complete	5.00	Per Nos.
119	Replacing by providing and fixing 6 mm thick toughen plain glass of doors and windows etc. including removing existing damaged glass neatly without damaged structure etc. Complete.	4.20	Sq.m
120	Providing and fixing good quality 32mm flush valve of approved brand / pattern to the existing flush valve of water closet all complete as directed including removing the old available unserviceable flush valve and depositing in Estate stores rectification of all damages etc. all complete.	2.00	nos
121	Providing and fixing Low / high level 10 liters capacity PVC flushing cistern with all fittings as approved by IITB inlet G.I. pipe with stop tap, brass chromium plated waste coupling and providing and fixing 32mm or required heavy duty PVC outlet bend pipe from flushing cistern upto the pan, 12mm dia PVC connection to the tank etc. all complete. as directed.	5.00	Nos
122	Providing and fixing hindware make white color Low level 3/6 liters capacity PVC Dual flushing cistern with all fittings as approved by IITB inlet G.I. pipe with stop tap, brass chromium plated waste coupling and providing and fixing 32mm or required heavy duty PVC outlet bend pipe from flushing cistern upto the pan, 12mm dia PVC connection to the tank etc. all complete. as directed.	5.00	No
123	providing and fixing Stainless Steel sink of size 610mm x 460mm x 200mm(Approximate internal size of tank ) of approved make and design( Nirali Make) including all connections of G.I. Supply and PVC waste outlet pipe and coupling , making good damaged surface etc. complete.	2.00	Nos
124	Excavation for foundation in earth, soil of all types, sand, gravel and soft mueum including removing the excavated materials upto a distance of 50 meters beyond the building area and lift upto 1.50 meters, stacking and spreading as directed including dewatering unless provided elsewhere, preparing the bed for the foundation and necessary back filling, ramming, watering complete excluding shoring and strutting.	2.00	Cum

125	Providing dry trap/ rubble stone soling 15cm to 20 cm thick including hand packing and compacting etc complete.	2.00	cum
126	Laying dry trap/ rubble stone soling of 230mm size thickness including hand packing and compacting using IITB stone including breaking and making/cutting stone/boulders in required size, lead and lift from any where in the campus etc. Complete.	2.00	Cum
127	Machine polishing to cement / marble mosaic tiled flooring or any other type of flooring including cleaning, washing, etc. Complete.	5.00	Sq.m
128	Hand polishing to dado, skirting including cleaning, washing etc. complete as directed.	5.00	Sq.m
129	Drilling straight and inclined holes upto 300mm depth and upto 20mm dia in concrete / masonry using electrically operated drilling machine and fixing nipple for grouting, including scaffolding, conducting water test.	10.00	Nos
130	Grouting existing RCC structure as per following operations including scaffolding, sealing leak paths with lead wool, removing nipple, plugging the hole with neat cement paste by ram packing, cleaning etc. complete. 1) Add Sunflex powder 1.00 kg in one bag of cement of 50 kg with adequate water. 2) Using mechanical means of pressure grouting with the above mix. The pressure shall be 5-10 psi. 3) The grouting to be done into the cracks of ceiling , walls , columns, & beam if necessary. 4) After through grouting sealing the holes with cement slurry.	20.00	Kg
131	Providing and sealing hairline / minor cracks in plaster by Paste formed out of polymer (S.B.R.) and cement in the proportion of (1:1 by volume) & adding extra cement for workable hand filling mix, cleaning and wetting the surface, curing and including cutting, demarcating grooves at any height with electrically operated cutter machine between sound and unsound plaster, cracks on external wall, separation cracks by using scaffolding ,	10.00	Rmt
132	Silicone sealants around window frames / window frame joints and drill holes for water outlet when the rain water on the glass fall into the channel and overflows (wherever required) including double scaffolding etc. Complete.	5.00	Rmt
133	Providing and filling separation crack of 75mm width and 25mm deep with polymer modified cementitious mortar. a) Demarcating groove, removing plaster / concrete carefully, washing with potable water. b) Filling polymer modified cementitious mortar in layers of 20mm thick (applying bond coat at every layer) upto profile of concrete in vicinity (composition of mortar: cement 1Kg.: polymer (SBR) of approved manufacturer 15% by wt. of cement : 3Kg silica sand (grading IS 383, zone II, silt content = 0% ) over a polymer + cement bond coat including applying making tape on both side of groove, cleaning, finishing to match the plaster in vicinity, double scaffolding disposing of debris anywhere in IITB campus, cleaning as directed etc. complete. c) Proportion d) Bond coat e) SBR polymer + cement in the ratio 1:1 by volume f) Polymer modified cementitious mortar g) SBR polymer 150ml. h) Cement 1 Kg. i) Silica sand 3.0 kg. (Note: - Demarcating groove, breaking Plaster / concrete shall be paid under respective items).	5.00	Rmt

134	Grouting in any RCC structure with low viscosity Monomor manufactured by M/s. CICO, SIKKA, MC Bouchmey, Sunanda Chemicals, Roffee etc. or any other approved brand epoxy based product of similar properties, as per manufacture's specification by providing suitable arrangement for grouting at pressure 2 to 3 kg / sqm. for all lift and leads. The grouting is to be done after cement grouting is completed etc. as directed.	10.00	Kg
135	Providing and erecting steel tubular H Frame double scaffolding with bracing to all height all around the building as directed by engineer in charge before commencement of work for multipurpose use including working platform wherever required, stiffened for all types of work and removing the same after completion of all external work requiring double scaffolding.(payments will be made once irrespective of duration upto max of 6 month for the scaffolding)	10.00	Sqm
136	Providing and applying French polishing to new wood work including knotting, preparing the surface, scaffolding etc. complete as directed.	5.00	Sqm
137	Providing and applying French polishing for required polish on previously polished wood including knotting, preparing the surface, scaffolding etc. complete as directed.	5.00	Sqm
138	Removing the old damaged / worn out plastic water storage tank of any size and capacity from the roof of the building carefully with out damaging any structural members of the building by using chainpulley arrangement and depositing in Estate stores etc. Complete.	1.00	each
139	Providing and fixing 100mm dia stainless steel nahani trap jali with ring etc. Complete	3.00	Nos
140	Providing and fixing in position best quality salt glazed stone ware gully trap with 150mm x 150mm square inlet and 100 mm n.b. outlet conforming to IS 651 including embedding the trap in M-15 (1:2:4) cement concrete, construction of brick masonry chamber 300mm x 300mm internal in 230mm thick brick masonry, plastering, finishing with neat cement floating coat, providing and fixing C. I. cover and frame weighing not less than 7 kg. etc including removing the old damaged gully trap, connecting all old and new inlets and out let pipes including running lines, jointing etc. all complete as directed.	2.00	Nos
141	Providing and laying temporary loop connection to main water supply inlet and outlet of water tank with 'C' class pipe of any dia elbows, tees, reducers, plugs, clamps etc. including other connections and commissioning the water supply line including scaffolding if required and remaking to original connections after repair etc. Complete.	2.00	Nos
142	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 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, 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
143	Providing and fixing P.V.C. rain water pipes 100mm outer dia. conforming to I.S. including proper rain water receiving recess with P.V.C. plug bend, necessary fittings such as offsets, shoes including fixing the pipe on wall using approved M.S brackets projecting 25mm to 40mm from face of wall & fixing with heavy duty PVC clips of approved quality & number, filling the joints using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, 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

144	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.	2.00	per job
145	Providing and fixing colour coated Galvalume profile precoated sheet for roofing and cladding having thickness 0.50mm 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 H frame scaffolding etc. complete as directed.	15.00	Sq.m
146	Providing and fixing 100mm(ID) dia.ISI approved HDPE pipes manufactured by ARHAM Engineering/ BERLIA /NOCIL / PIL with wall thickness of 6 mm to 8mm for taking sewage waste water with all required fittings such as bend, elbows etc. with proper line and gradient connecting all joints with fusion butt welding by using suitable welding machine or hot plate, testing the line & joint as per manufacturer specification etc. all complete as directed by Engineer In-charge.	10.00	Per Rmt
147	Providing and fixing 150mm(ID)dia ISI approved HDPE pipes manufactured by ARHAM Engineering/ BERLIA /NOCIL / PIL with wall thickness of 6 mm to 8mm for taking sewage waste water with all required fittings such as bend, elbows etc. with proper line and gradient connecting all joints with fusion butt welding by using suitable welding machine or hot plate, testing the line & joint as per manufacturer specification etc. all complete as directed by Engineer In-charge.	10.00	Per Rmt
148	Providing and laying white/colour veined marble slabs 18mm thick in one piece stone for claddings,platform,treads and risers of steps and stair cases with rounded nosing and grooves for the treads laid on bed/ plaster of cement mortar 1:4 including cement float, filling joints with neat cement slurry, curing , polishing and cleaning complete.	5.00	Sq.m
149	Providing and fixing health faucet jet spray set with tube of approved Jaguar make including necessary socket/ union etc. complete as directed.	2.00	No
150	Providing and fixing towel ring round flange of approved jaguar or equivalent make etc. Complete.	2.00	No
151	P/F ½" dia CP Bib Cock / Angle Cock of jaguar ( continental series ) including necessary fitting and fixtures etc. complete as directed	5.00	No
152	Providing & fixing hydraulic door closer of approved quality and make to door shutter including making proper adjustment for smooth operation etc. Complete.	2.00	Nos
153	P/F 25mm dia aluminum powder coted heavy duty (58.33gram/ft) approved draftery curtain rod with decorative side holders including required fittings and screws (length upto 1.5m) all complete	10.00	Rmt
154	P/F 25mm dia aluminum powder coted heavy duty (58.33gram/ft)approved draftery curtain rod with decorative side holders and middle brackets including required fittings and screws(length beyond 1.5m) all complete	10.00	Rmt
155	P/F 25mm dia Stainless steel 304 grade heavy duty 16 gauge approved pattern curtain rod with decorative side holders and middle brackets including required fittings and screws all complete	5.00	Rmt
156	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 etc. all complete as directed by Engineer In-charge.	5.00	Nos

157	Dismantling existing kitchen platform made of marble top and kadappa support carefully and lowering down the debris at ground level and stacking up to 50 meters beyond the building area for tacking out the same all complete as directed. ( size approximately 3.5mt X 0.6 mt )	1.00	Job
158	Providing & fixing ISI approve heavy type Angle Cock (Cavier make Rienza series) including extension Pipe, C.P Double nippal etc.complete.	2.00	No
159	Providing and fixing ISI approve two way Wall mixture (cavier / Jaquar make) system with provision for only overhead shower complete with 115mm long bend pipe including fixtures etc. Complete.	1.00	No
160	Providing and fixing ISI approve three in one Wall mixture (Jaquar make) system with provision for both hand shower and overhead shower complete with 115cm long bend pipe, including fixtures (Excluding hand shower)etc. Complete.	1.00	No
161	Providing & fixing jaquar make telephonic hand shower 80mm round with 1.5m long jaquar make flexible chrome tube which connected to three way mixer including fixtures etc. Complete.	1.00	No
162	Providing & fixing Cera make Platform top wash hand basin of size 602mm x 433mm including vertical pillar cock, Stop Cock, West Coupling, West Pipe, Connection Pipe, etc complete or as directed.	1.00	No
163	Providing ,Fabricating and fixing at all floors, locations and heights stainless steel storage / Service Units / kitchen trolleys below existing granite Kitchen Platform upto depth 24 " to 26" as required made with 304 S.S. (Food grade ) Comprising of 19mm square pipes outer frame , sink unit with bottle and bin holders , bottle pull out , utensils and storage unit kit etc. as desired by Engineer incharge and as per approved design consisting of 6mm dia S.S. round bars and 5mm dia distribution S.S. round bars or 1 mm thick perforated S.S. sheet where ever required & fabricated as directed including cost of providing teakwood Frame work , Sliding channel, 18mm waterproof plywood with sunmica facia , handles , screws , nails, cost of materials , transporting , labour, wastage and testing etc complete as directed( weight of the trolley should not be less than 55kg/sqm of elevational area)	5.00	Rmt
164	Providing & fixing in position wall unit, overhead storage, made out of using 18mm thick waterproof plywood sides & shutters, 6mm thick waterproof plywood backing, 1 mm thick sunmica for all exposed surfaces , CP teakwood frame work / supports fixing the unit on wall , handles with providing & fixing glass shelf of 12mm thick 1 no at 45 cm including necessary edging, moulding , buffing etc. & locking arrangement , hinges & other hardware & required fitting etc. all complete as directed	5.00	Sq.m
165	Supplying fabricating & fixing in position fully galzed aluminium single/double leaf double glass window using 15 micron anodized RZ section 46mm x 33mm x 2mm ( 0.38 kg/Rft )for window shutter , 46mm x 33mm x 2mm aluminium RZ single border outer frame , 21mm x 15mm x 2mm ( 0.38 kg/Rft ) aluminium RZ clip , 60mm x 34mm x 2mm ( 0.4 kg/rft )aluminium RZ centre , aluminium angle , 5mm thick plain double glass with jambo rubber gasket, adjustable hinges 2 nos on each shutter, z handle 2nos, window stay 2 nos, P/F aluminium outer hollow box section of size 50mm x 25mm x 1.5mm (0.18 kg/rft) and fixing the shutter on aluminium outer frame etc. complete as directed(All aluminium section Jindhal make)	2.00	Sq.m
166	Providing & levelling the undulation/ sagging of floor with cement mortar 1:4 upto 30 thk to make proper base for floor tiling including levelling, curing, and cleaning etc. complete at any floor	2.00	Sqm
167	Providing and fixing stainless steel sink approved brand (nirali or equalant) Kitchen sink as per IS 13983 with CI brackets and stainless steel plug 40mm including painting of fittings and brackets, cutting, and making good the walls wherever required (kitchen sink nirali make with drain board of size 510x915mm bowl depth 200mm)	1.00	Nos.



168	Providing hoisting and fixing in position ISI mark plastic storage water tank of approved make on roof of building at any height including with all fittings & fixtures & CI cover with locking arrangement as per approved pattern, copper ball float of 1" size, connecting the tank (inlet and outlet) with the existing waterline, providing and fixing over flow pipe 25mm dia with mosquito proof brass coupling using required fitting / fixtures, etc. all complete as directed by In charge Estate office.	2000.00	Lit
169	Providing & fixing granite counter wash basin of size upto 3' x 1.5' for counter including coloured oval shape wash basin with Jaquar make Pillar tap, CP bottle trap, connector, angle cock complete including kaddpa supports, moulding, fascia patti all complete as directed by Engineer incharge.	1.00	No
170	P/F platform shutters/ kitchen shevelst/ loft shutters in 2"x1" teakwood frame with 18mm thick waterproof plywood of approved manufacture lipping with teakwood edge banding on all edges shelves, draws, shutters, partitios etc. & finish with 1 mm thick lamination approved colour with fixing sunmica bothside of plywood including 1 no decorative 5" S.S. Handle, magnet, & 2nos eigties hinges to each shutters with required screws including necessary fittings and fixtures incuding cost of transportation , fixing in position etc complete	2.00	Sq.m
171	Providing and fixing in position aluminium 2 track sliding double glass window in heavy anodized section 15 micron with including frame work of aluminium hollow pipe section 75mm x 25mm size with 14 gauge thick weight of 1.036kg/m , aluminium sliding track of size 66.5x50mm of weight 1.329kg/m with shutter section of size 66x26mm of weight 0.774kg/m including gazing clip of size 38.7x 28.5 mm of weight 0.303kg/m including making holes for draining of water fixing 5mm thick clear double glass shutter with rubber gasket, concealed lock, Meeti make heavy quality bearing including all necessary fittings required for double glass window , providing silicon sealent if required all complete as directed.( all aluminium section will be Jindhal make)	5.00	sqm
172	Providing and fixing in position aluminium 2 track sliding double glass window with top and bottom fixed double glass window in heavy anodized section 15 micron with including frame work of aluminium hollow pipe section 75mm x 25mm size with 14 gauge thick weight of 1.036kg/m , aluminium sliding track of size 66.5x50mm of weight 1.329kg/m , shutter section of size 66x26mm of weight 0.774kg/m ,gazing clip of size 38.7x 28.5 mm of weight 0.303kg/m with single groove section of 89x32mm of 2.75 mm thk of weight of 1.933kg/m for fixed glass above and below of sliding window including fixing 5mm thick clear double glass shutter with rubber gasket, concealed lock, Meeti make heavy quality bearing for sliding window including all necessary fittings required for double glass window, providing silicon sealent if required all complete as directed.( all aluminium section will be Jindhal make)	5.00	sqm
173	Providing and fixing in position aluminium 3 track sliding double glass window in heavy anodized section 15 micron with including frame work of aluminium hollow pipe section 100mm x 40mm size with 14 gauge thick of weight 1.469kg/m , aluminium sliding track of size 101.5x50mm of weight 1.798kg/m with shutter section of size 66x26mm of weight 0.774kg/m including gazing clip of size 38.7x 28.5 mm of weight 0.303kg/m including making holes for draining of water fixing 5mm thick clear double glass shutter with rubber gasket, concealed lock, Meeti make heavy quality bearing including all necessary fittings required for double glass window ,providing silicon sealent if required all complete as directed.( all aluminium section will be Jindhal make)	5.00	Sq.m
174	P/F ISI approved heavy type ½" dia CP Bib cock of Seiko made including socket, union nut etc. complete as directed	2.00	Nos.

175	Providing and fixing in position three track aluminium sliding windows of six shutter using aluminium section of bottom of size 116mm x 25mm x 1.35 mm (1.160kg/mtr) thick ,for sides and top section of size 116mm x 25mm x 1.4 mm (1.005kg/mtr) thick . The shutter comprising of bearing bottom section of 60mm x25mm x1.45mm (0.781kg/rmt) and handle aluminium section member of size 50 mm x25mm x 1.5 mm (0.717kg/mtr) thick , interlocking aluminium section with both side interlocking arrangement 44.5mmx25mmx1.06mm(0.637kg/m) and interlocking section with one interlocking arrangement of 45mmx25mmx1.2mm(0.595kg/m) and for central locking providing F section of of section of 40mm x25mm x1.5mm (0.545kg/rmt) including providing and fixing S.S 304 grade flyproof mesh in two shutter using ,aluminium U clip & 6mm toughen glass in four shutter using rubber gasket,. Heavy type of PVC rollers for each shutter, necessary sliding shutter latch, 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 & Jindhal make).	8.60	Sq.m
176	Providing and fixing hindware make white glazed earthenware pedstal wash hand basin of size 56cm x 43cm , pedstal height 68cm including one cold water contentail series 450mm long swan neck tap of jaquar , brackets, rubber plugs and brass chain, stop tap of jaquar and necessary pipe connection including jaquar make bottle trap etc. Complete as directed	1.00	No
177	Providing & fixing hindware make Platform top wash basin of size 63cm x 50cm including ,one cold water contentail series 450mm long swan neck tap of jaquar,Stop Cock, West Coupling, jaquar make bottle trap, Connection Pipe, etc complete or as directed.	1.00	No.
178	Providing and fixing European type wall hung white glazed earthenware water closet pan of Hindware or IITB approved brand & type with P.V.C seat and lid with chromium plated brass hinges and rubber buffers including PVC heavy type flush pipe with fittings and clamps, cutting and making good walls and floors etc. complete as directed.	1.00	No.
179	Providing & fixing ISI approve long swan neck pillar tap jaquar make including necessary fixtures etc.complete as directed	5.00	No
180	Providing & fixing ISI approve bottle trap below wash basin including necessary fixtures etc.complete as directed	5.00	nos
181	Providing & fixing ISI approve heavy type Kitchen sink cock with swinging casted spout (wall mounted)jaquar make including necessary fixtures etc.complete as directed	1.00	No
182	Providing & fixing ISI approve heavy type two way bib cock jaquar make including necessary fixtures etc.complete as directed	1.00	No
183	Providing and fixing extra shutter of comprising of bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.469kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing S.S 304 grade flyproof mesh in the shutter using aluminium U clip, 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 & Jindhal make).	5.00	Sq.m
184	Providing and fixing extra shutter of comprising of bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.40kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing 5.0mm thick glass (Plain or frosted) in the shutter using neoprene gasket, approved quality minimum two nos.PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, etc. complete as directed by Engineer in charge.( Note: All aluminium sections and fitting are 15 micron anodized & Jindhal make)	5.00	Sq.m

185	<p>Providing and applying three coats of Dr. Fixit Roofseal coat as per manufacture's specification on Building roofs / Terraces – Flat &amp; slope. Over existing cementitious waterproofing treatments like brick-bat coba with IPS/ China mosaic top, concrete screeds, acrylic coatings, etc. and as per the method of surface preparation given below Dr. Fixit Newcoat (for horizontal surface/ terrace)</p> <p>Method of Application</p> <p>1) Cleaning the existing surface and filling the cracks by recommended crack filling material. Apply the first coat of Dr. Fixit roofseal at the rate of 2 m<sup>2</sup> per litre and allow it to dry before taking up the second and third coats, the rate of application being the same.</p> <p>2) The sequence of colours viz-a-viz pink, green and grey can be decided depending on the desired top coat colour.</p> <p>3) In case only two colours are being used, ensure that the colour of the first and the third coat are the same. This would ensure correct consumption of material that will deliver a total DFT of 1 mm. Covering Guarantee period for 3 years on requisite stamp paper.</p> <p>(During defects liability period if any leakages are found and due to continuous rains if rectification work is not possible then it should be covered by tarpaulin sheet on urgent basis by the contractor and if not attended, the same will be done by IITB on risk and cost basis and necessary payment for the same will be deducted from security deposit amount / any other payments payable to the agency)</p>	20.00	sqm
186	<p>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 ratio of 1 part IITB approved brand shrikomp to 0.75 part of quartz aggregate by weight providing marine plywood formwork in line and level, cleaning, curing etc. complete. The compressive strength of super fluid micro concrete should not be less than 20N/mm<sup>2</sup>. (reinforcement treatment coat shall be paid under respective items). (Consumption of weight of super fluid micro concrete powder shall be measured for payment ; challans of authorized dealer will be verified) including scaffolding etc. Complete.</p>	500.00	kg

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 item / 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.

*[Handwritten Signature]*  
18/09/2019

Superintending Engineer (I/C)

*[Handwritten Signature]*  
12/09/14

*[Handwritten Signature]*  
17/9