

## INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE, JADAVPUR

### CIVIL ADDITION, ALTERATION AND RENOVATION WORK INSIDE THE WORKSHOP BUILDING, IACS, JADAVPUR

Sl. No.	Description of Items	Quantity	Unit	Rate/Unit (Rs.)	Amount (Rs.)
<b>A</b>	<b>DISMANTLING WORKS</b>				
1	Dismantling all types of masonry except cement concrete plain or reinforced. Stacking serviceable materials at site and removing rubbish as directed within the IACS campus.				
	(a) At Ground floor	2.00	Cum.		
2	Dismantling all types of plain cement concrete works, stacking serviceable materials at site and removing rubbish as directed within IACS campus.				
	(a) Ground floor	4.00	Cum.		
3	Dismantling carefully the wooden/steel door, windows etc. including frame and panels and shifting the same to the godown of IACS as directed.	20.00	Nos.		
4	<b>Stripping off worn out plaster</b> and raking out joints of wall & ceiling upto any height and in any floor and including removing of rubbish and stacking anywhere within the campus as directed.	65.00	Sqm.		
5	Taking out existing window grill from walls including mending all damages as per direction of EIC.	100.00	Sqm.		
<b>B</b>	<b>CIVIL WORKS</b>				
6	Earth work in excavation of foundation trenches in all sorts of soil including removing, spreading or stacking the spoils within a lead of 75 m as directed up to 500mm depth.	15.00	%Cu.m		
7	Single Brick Flat Soling of Picked jhama bricks including ramming and dressing bed to proper level and filling the joints with local sand.	30.00	Sqm.		

8	<b>Brickwork</b> with 1st class bricks in cement mortar (1:6), in superstructure and below ground level.	10.00	Cum.		
9	<b>125 mm thick brick work</b> with 1st class bricks in cement mortar (1:4) with using approved H.B. netting in every third layer. (Ground floor).	300.00	Sqm.		
10	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20mm nominal size) excluding shuttering and reinforcement In ground floor and foundation.	53.00	Cum.		
11	Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20mm nominal size) excluding shuttering and reinforcement as per direction of EIC.	6.00	Cum.		
12	Hire and labour charges for shuttering with centering and necessary staging upto 4.0m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams, lintels and striking out after completion of works.				
	(a). 25mm to 30mm thick wooden shuttering as per direction of EIC	70.00	Sqm.		
13	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc. initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge black annealed wire at every intersection, complete as per direction of EIC.				
	(a). Tor Steel / Mild Steel, for works in ground floor upto 4.0 m	1.00	M.T		
14	Applying 2 coats of Mastercrete M-81 (Acrylic Co-polymer) or equivalent Acrylic latex mixed with cement in the ratio 1:2 by means of brush to the efflorescence affected portion of the walls, 2 coats at an interval of 12 hours, curing the coating upto 3 days.	50.00	Sqm.		

15	<b>Plaster to wall, ceiling</b> etc. with coarse sand and cement mortar (4:1) including rounding off or chamfering corners as directed and raking out joints or roughening of concrete surface including throating, nosing and drip course where necessary.				
	(a) With cement sand mortar (6:1) - 20mm thick (on brick work surface).	690.00	Sqm.		
	(b) With cement sand mortar (6:1) - 15mm thick (on concrete and ceiling surface).	30.00	Sqm.		
16	Cleaning the concrete surface by removing dirt and making defective locations and removing loose concrete by careful stripping until hard surface is exposed, cutting the concrete to regular shape, wire brushing the exposed surface and removing debris from site complete as per direction of EIC. The rate is inclusive required scaffolding and staging at any level.	50.00	Sqm.		
17	Cleaning the exposed reinforcement preferably full diameter by wire brush, applying two coats of polymer based rust removing compound left for 24 hours, removing the coating and then applying two coats of polymer modified anti corrosive protective coating formulated to inhibit the corrosion of reinforcement as per manufacturer's specification. The rate is inclusive required scaffolding and staging at any level.	50.00	Sqm.		
18	Applying epoxy based reactive joining agent for joining the old concrete with fresh concrete to be applied within manufacturer's specified time and specification (0.40kg/sq.m of concrete surface). The rate is inclusive required scaffolding and staging at any level.	50.00	Sqm.		

19	37.5mm thick Cement Concrete (1:1.5:3) with graded stonechips 5.6mm size with hexagonal square mesh wire netting, I.R.C fabric mesh or X.P.M fitted and fixed after tying the existing reinforcement on concrete without distributing the same and with proper scarping and cleaning the reinforcement and disturbed concrete with wire brush etc. after applying a coat of cement including the cost of wire netting I.R.C or X.P.M & cost of all handling and scaffolding complete as per direction of Engineer-In-Charge. The rate is inclusive required scaffolding and staging at any level.	50.00	Sqm.		
<b>C</b>	<b>WOOD WORKS</b>				
20	<b>Wood work</b> in door frame fitted and fixed complete including a protective coat of painting at the contact surface of the frame. Sal: Siliguri	1.00	Cum.		
21	Supplying Solid Flush type Doors of commercial quality, the timber frame consisting of top and bottom rails and side styles of well seasoned tomber 65mm wide each and the entire frame fitted with 37.5mm wide battens places bothways in order to make the door of solid core and internal lipping with Garjan or similar wood veneers using phenol formaldehyde as glue etc. complete, including fitting, fixing shutters in positions and all other fittings like hings, screws, hold fasts etc. (32 mm thick single leaf shutter)	30.00	Sqm.		
22	Vision aperture (retangular in shape) on the solid flush doors with 4mm thick glass pane with wooden beads.	12.00	Each		
23	Supplying fitting, fixing decorative lamination conforming to IS:2046 : 1995 as per approved make, brand, finish and thickness with fitting, fixing the same on solid flush doors with recommended / approved adhesive with proper clipping the sides for better attachment as per direction of EIC. The rate includes the cost of labour, adhesive and all incidental charges.	60.00	Sq.m		
24	Supplying, fitting and fixing the following fixtures:				

	(a) "Godrej" mortice lock chromium plated with latch and keys 4 levers, including fitting and fixing complete.	12.00	Nos.		
	(b) Door Stopper (anodised aluminium)	12.00	Nos.		
	(C) Godrej Hydraulic door closer of Medium type fitted and fixed complete.	12.00	Nos.		
	(d) Anodised aluminium barrel/ tower/ socket bolts (full covered) of approved quality manufactured from extruded section conforming to IS: 204/74 fitted and fixed with cadmium plated screws. 300 mm long x 10 mm dia bolt.	16.00	Nos.		
	(e) Anodised aluminium D - type handle of approved quality manufacture from extruded section conforming to IS: 230/72. 150mm grip x 12 mm dia rod. With continuous plate base hexagonal/ round rod.	16.00	Nos.		
25	Supplying, fitting and fixing 19 mm thick boiling water proof ply conforming to IS:710-1977 bonded with phenol formaldehyde synthetic resin conforming to IS:848-1974 of approved make and brand fitted and fixed as per design as per approval and direction of Engineer-in-Charge.	65.00	Sq.m		
26	Providing and fixing of <b>Wooden Partition work</b> made of wooden frame work of section 75mm x 75mm in both ways @ 750mm to 900mm interval properly fixed with ground and side walls including a coat of anti-termite paint, covered from both sides with double layer 12mm thick BWR ply conforming to IS: 710-1977 bonded with phenol formaldehyde synthetic resin conforming to IS: 848-1974 of approved make and brand (upto 1500 mm high) All visible outside surfaces of the ply to be finished with 1mm thick teak veneer and 25mm moulding beads shall be fixed surrounding the wooden portion, all free edges of the plywood should be finished with 6mm thick teak wood edge lipping and all wooden portion shall be finished with high glossed natural polish as per the direction of the E-I-C.	18.00	Sq.m		

<b>D</b>	<b>PAINING WORKS</b>				
27	Cleaning the walls and ceiling by scraping, sand papering and smoothening down the surface including puttying.	2000.00	Sqm.		
28	Rendering the surface of wall with <b>Plaster of Paris</b> . Thickness not less than 1.5mm	2000.00	Sqm.		
29	<b>Priming</b> one coat on timber, plastered or on metal surface with primer of approved quality including smoothening surfaces by sand papering etc.	2500.00	Sqm.		
30	Painting with best quality <b>Synthetic Enamel paint</b> of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface if necessary over a coat of synthetic primer. Two coats or more to have an even shade (with any shade except white).				
	(a). On timber or plastered surface	125.00	Sqm.		
	(b). On Steel or other metal surface	100.00	Sqm.		
31	Applying Acrylic <b>Emulsion Paint</b> of approved make and brand, shade on walls and ceiling including sand papering in intermediate coats including putty. 2 coats or more for even shade.	2500.00	Sqm.		
<b>E</b>	<b>ALUMINIUM WORKS</b>				

32	Providing and fixing <b>anodized aluminum</b> work of approved shade for <b>window</b> as per approved design using extruded standard tubular sections of INDAL 2082 @ 0.554 kg/m. , INDAL 9139 @ 0.81 kg/m and INDAL 4124 @ 0.494 kg/m. or approved equivalent conforming to IS: 733 and IS: 1285 anodized colour of approved shade according to IS: 1868 (minimum anodic thickness 15 micron) fixed with rawl plugs and screws or with fixing clips or with expansion hold fasteners including necessary filling up of gaps at junction, at top, bottom and sides with required neoprene felt etc. This item will include all necessary standard accessories like PVC weather gasket, EPDM glazing gasket, handle hinge and applying polysulphide sealant all around peripheri of the window, along with 5 mm thick tinted float glass of approved colour etc. all complete with allied civil and finishing works and also taking out the existing window as directed by the E-I-C.	75.00	Sqm.		
<b>F</b>	<b>FLOORING WORKS</b>				
33	Supplying and laying true to line and level <b>Vitrified Tiles</b> of approved brand ('Varmora'/ 'Nitco'/ 'Marbonite'/ 'Euro'/ equivalent) (size 600mm x 600mm x 10mm) in floor, shirting etc. set in 20mm sand cement mortar (1:4) and 2mm thick cement slurry back side of tiles using cement @2.91 Kg/Sq.m or using polymerised adhesive (6 mm thick layer applied directly over finished artificial stone floor), joints grouted with admixture of white cement and colouring pigment to match with colour of tiles, polishing the tiles using soft and dry cloth mirror finish complete including the cost of materials, labour and all other incidental charges complete true to the manufacturer's specification and direction of the E.I.C.	250.00	Sqm.		

34	Supplying and laying 18mm to 22mm thick <b>Kota stone</b> slab set in 20 mm thick (avg.) cement mortar (1:4) in floor, skirting pointing in cement slurry with admixture of pigment matching the stone shade, including grinding & polishing as per direction of EIC.	410.00	Sqm.		
35	Supplying, fitting and fixing <b>Black Granite Slab</b> 18mm thick with uniform texture in floor, skirting with 15 mm thick (avg.) cement mortar (1:2) or adhesive as directed including making suitable arrangements to hold the stones properly with admixture of pigment matching the stone shades all complete as per direction of the E-I-C including cost of all materials and curing complete.	50.00	Sqm.		
36	Supplying, fitting & fixing <b>1st quality Ceramic tiles</b> as approved of any size in wall including borders to match with the existing work set in cement sand mortar (1:4) including backing concrete (1:2:4) and 4 nos of key stones (10mm) fixed with araldite at the back of each tile & finishing the joints with white cement with colouring oxide to match the colour of tiles. Coloured decorative (any shade except white).				
	(a). In Floor	20.00	Sqm.		
	(b). In Wall	60.00	Sqm.		
37	Supplying & laying of approved brand of scratch proof, flexible & homogeneous 2mm thick P.V.C Vinyle flooring conforming to IS:3462-1982 in required finish, fixed with synthetic acrylic adhesive after preparing the floor levelling & smoothening where necessary with suitable putty as per direction of EIC	35.00	Sqm.		
<b>STRUCTURAL WORKS</b>					



38	<p><b>M.S Structural Works</b> in columns, beams etc. with simple rolled structural members (e.g. joists, angle, channel sections conforming to IS: 226, IS: 808 &amp; SP (6)-1964 connected to one another with bracket, gasket, cleats as per design and direction of the E-I-C complete including cutting to requisite shape and length, fabrication with necessary metal arc welding conforming to IS: 816-1956 and IS:1995 using electrodes of approved make and brand conforming to IS:814-1957, haulage, hoisting and erection all complete. The rate includes the cost of rolled steel section, consumable such as electrodes, gas and hire charges of all tools and plants and labour required for the work including all incidental charges such as electricity charges, labour insurance charges etc.&amp; required staging at any level of Ground Floor and painting with 2 coats of synthetic enamel paint over a coat of primer as directed at any floor.</p>	1.00	M.T.		
39	<p>M.S Ornamental grill of approved design joints continuously welded with M.S Flats, bars of windows, railing etc. fitted and fixed with necessary screws and lugs as per design.</p>	12.00	Qntl		
	<p><b>FALSE CEILING WORKS</b></p>				

40	Providing and fixing at all height <b>False Ceiling</b> of 12.5 mm thick Gypsum Board of Casoprano, Sundance vairyty (semi-perforated) of India Gypsum or equivalent conforming to IS: 2095 including the frame work by 15mm narrow flashed stiched suspension grid system using 32mm x 15mm Tee section and grid of 600mm x 600mm. Main runner to be fixed by 2mm thick pre-streched GI wire with soffit cleat and GI rawl plug inserted on the main roof to be fixed @ 1220 c/c. All base frame material clip should be of cold rolled steel components and coated with hot dip galvanized steel. It should have a capping of material coated with backed polyester paint. The item includes cost of two coatsof primer suitable for Gypsum board and also including the cost of making opening for light fittings, grills, diffusers, cut outs made with perimeter channels suitably fixed all complete excluding the cost of the painting.	275.00	Sqm.		
	<b>SANITARY &amp; PLUMBING WORKS</b>				
41	Supplying, fitting and fixing <b>G.I. pipes</b> of TATA make with all necessary accessories, specials viz. socket, reducing tee, short piece, bend, tee, union, cross, elbo, nipple, longscrew, reducing socket, etc. fitted with holder bats clamps, including cutting pieces, making threads, fitting, fixing etc. complete in all respects including cost of all necessary fittings as required, joining materials and 2 coats of painting with approved paint in any position above ground.				
	(a) 32mm dia medium quality.	10.00	Mtr.		
	(a) 20mm dia medium quality.	15.00	Mtr.		
	(b) 15mm dia medium quality.	25.00	Mtr.		

42	Supplying, fitting and fixing white vitreous china best quality approved make Wash Basin (550mm x 400mm) ('Hindware/'Parryware/' equivalent) with C.I. brackets on 75mm x 75mm x 75mm wood blocks, C.P. waste fitting of 32mm dia, one approved quality brass C.P. Pillar cock (ESSCO or equiv.) of 15mm dia, C.P. Angular Stop cock of 15mm, C.P. chain with rubber plug of 30mm dia, approved quality PVC waste pipe with C.P. nut 32 mm dia, 900mm long of approved quality PVC connection pipe with heavy brass C.P. nut including mending good all damages and painting of brackets with two coats of approved paint. All C.P. fittings are of ESSCO or equivalent as directed.	2.00	No.		
43	Supplying, fitting and fixing Pedestal of approved make for wash basin. ('Hindware/'Parryware')	2.00	No.		
44	Supplying, fitting and fixing the followings:				
	(a) Fullway gunmetal Peet's Valve standard pattern (make 'Leader/'equiv.) with fittings. (tested to 21 kgs/sqcm.).				
	(i) 15 mm.	3.00	No.		
	(ii) 20 mm.	2.00	No.		
	(iii) 32 mm.	2.00	No.		
	(b) Chromium plated Bib Cock over brass ("ESSCO" or approved make )	4.00	No.		
	(c). Chromium plated Stop Cock over brass ("ESSCO or approved make )	8.00	No.		
	(d) Cromium Plated over brass Towel rail with two brackets 25mm dia and 750 mm long.	2.00	No.		
	(e) Liquid soap holder. Fibre glass	2.00	No.		
	(f).Supplying, fitting and fixing best quality Indian make mirror 5.5 mm thick with silvering as per I.S.I specifications supported on fibre glass frame of any colour, frame size 550mm X 400 mm	2.00	No.		

	(g) Glass shelf with aluminium guard rails. Ordinary type with 5.5 mm sheet glass. 600 mm x 126 mm.	2.00	No.		
45	Supplying, fitting and fixing E.W.C in white glazed vitreous chinaware of approved make complete in position with necessary bolts, nuts etc.	2.00	No.		
46	Supplying, fitting and fixing Wall mounted water closet of white glazed vitreous chinaware of approved make and brand (Hindware or equivalent) in position complete with necessary nut and bolts.	2.00	No.		
47	Supplying, fitting and fixing Closet seat of approved make with lid and C.P hinges, rubber buffer and brass screws complete	2.00	No.		
48	Supplying, fitting and fixing 32mm dia. Flush Pipe of approved make with necessary fixing materials and clamps complete.	2.00	No.		
49	Supplying, fitting and fixing Flat back urinal (half stall urinal) in white vitreous chinaware of approved make in position with brass screws on 75mm X 75mm X 75mm wooden blocks complete. Size - 590mm X 390mm X 380mm.	4.00	No.		
50	Supplying, fitting and fixing urinal flush pipe fittings of approved brand.	4.00	No.		
51	Supplying, fitting and fixing CPVC (Chlorinated Polyvinyl Chloride) pipes (40mm dia.) of approved make conforming to IS:-15778:2007 with all necessary accessories special viz. socket, bend, tee, union, cross, flbo, nipple, longscrew, etc. fitted with holder bats clamps, including cutting pipes, fitting, fixing etc complete in all respect including cost of all necessary fittings as required jointing materials in any position.	15.00	R.M		
<b>PVC DOOR &amp; WINDOWS</b>					

52	Supplying, fitting & fixing 30 mm thick factory made solid Panel <b>PVC Door Shutter</b> consisting of outer frame made out of M.S. tubes of 19 gauge thickness and size 19 mm x 19mm for styles, top and bottom rails, M.S frame shall have cost of steel primers of approved make and manufacture, M.S frame covered with 5 mm thick heat moulded PVC "C" channel of size 30 mm th, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on either sides forming styles: and 5 mm th, 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm tapered in 45 degree on the inner side to form top & bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail.	6.00	Sqm.		
53	Supplying, Fitting & fixing Factory made PVC Door frame of size 50 mm x 47 mm with a wall thickness of 5 mm made out of extruded 5 mm PVC sheet miter cut at two corners and joined with two nos. of 1.5mm long brackets of 15 mm x15mm M.S square tube. The two vertical door profile are to be reinforced with 19 mm x 19 mm M.S. Square tube of 19 gauge, weather seal to be provided through out the frame. The door drame shall be fixed with the wall using 65/100 mm long M.S. Screws through the frame by using P.V.C fasteners. A minimum of 4 Nos. of screws to be provided for each vertical member and minimum 2 Nos. for horizontal member etc. complete as per manufacturer's specification and direction of EIC.	16.50	Mtr.		
<b>MISCELLANEOUS WORKS</b>					
54	Providing, fitting and fixing metallic best quality as approved <b>Vertical Blinds</b> 115mm wide of approved make consisting of aluminium hanging rod with adjustable string systems as per the direction of the E-I-C.	35.00	Sqm.		
				<b>TOTAL</b>	