

## Bill of Quantity

### Construction of toilet block in Science park at Science Centre, Bardhaman.

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
1.0	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete. Depth of excavation not exceeding 1,500 mm.	15	Cum.	119.27	1,789.05
2.0	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work) With earth obtained from excavation of foundation.	15	Cum.	77.54	1,163.10
3.0	Filling in foundation or plinth by fine sand in layers not exceeding 150 mm as directed and consolidating the same by thorough saturation with water, ramming complete including the cost of supply of sand. (payment to be made on measurement of finished quantity)	7	Cum.	640.86	4,486.02
4.0	Single Brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand.	20	Sqm.	324.00	6,480.00
5.0	Supplying and laying Polythene sheet (150gm/ Sqm) over damp proof course or below flooring or roof terracing or in foundation or in foundation trenches.	40	Sqm.	24.00	960.00
6.0	Brick work with 1st class bricks (Class designation 75) in cement mortar (1:6)				
6.1	In Foundation & plinth	8	Cum	4,812.00	38,496.00
6.2	In superstructure at any floor.	2	Cum	5,035.00	10,070.00
7.0	125mm thick brick work with 1st class bricks in cement mortar (1:4) at any floor.	90	Sqm.	664.00	59,760.00
8.0	Providing and laying in position Plain Cement concrete (mix 1:3:6) with graded stone chips (20 mm nominal size) of Pakur variety including shuttering, if any, in foundation & upto ground floor as per relevant IS codes.	1.5	Cum.	5,533.16	8,299.74

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
9.0	Providing and laying in position Ordinary Cement concrete of specified grade with graded stone chips (20 mm nominal size) of Pakur variety excluding the cost of centering, shuttering and reinforcement, if any, in ground floor as per relevant IS codes.				
9.1	1:1½:3 (1 Cement: 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size)	1	Cum.	6,374.25	6,374.25
9.2	1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)	3	Cum.	6,001.25	18,003.75
10.0	Hire and labour charges for shuttering with centering and necessary staging upto 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams, columns, lintels curved or straight including fitting, fixing and striking out after completion of works. 25mm to 30mm thick wooden shuttering as per decision & direction of Engineer-In-Charge.	15	Sqm.	328.00	4,920.00
11.0	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc. including supply of rods, 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 drawing and direction. For works in foundation and upto roof of ground floor/ upto 4 m using Tor/HYSD steel.	0.3	MT	68,053.00	20,415.90
12.0	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course, scaffolding/staging where necessary at any height. With 1:6 cement mortar, 15mm thick plaster.	210	Sqm.	136.00	28,560.00
13.0	Neat cement punning about 1.5mm thick in wall, dado, window, sill, floor etc. NOTE: Cement 0.152 cu.m per100 sq.m.	15	Sqm.	34.00	510.00
14.0	Supplying, fitting & fixing 1st quality Ceramic tiles in walls & floors to match with the existing work & 4 nos. of key stones (10mm) fixed with araldite at the back of each tile & finishing the joints with white cement mixed with colouring oxide if required to match the colour of tiles including roughening of concrete surface, if necessary or by synthetic adhesive & grout materials etc.				

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
14.1	In floor with Sand Cement Mortar (1:4) 20 mm thick & 2 mm thick cement slurry at back side of tiles using cement @ 2.91 Kg/Sq.m & joint filling using white cement slurry @ 0.20kg/Sq.m. Area of each Coloured decorative premium quality tile is upto 0.09 Sq.m. (Make: Kajaria / NITCO / Orient Bell)	28	Sqm.	733.00	20,524.00
14.2	In walls with Sand Cement Mortar (1:3) 15 mm thick & 2 mm thick cement slurry at back side of tiles using cement @ 2.91 Kg/Sq.m & joint filling using white cement slurry @ 0.20kg/Sq.m. Area of each Coloured decorative premium quality tile is above 0.09 Sq.m. (Make: Kajaria / NITCO / Orient Bell)	60	Sqm.	740.00	44,400.00
15.0	Providing and fixing Granite stone slab of approved shade table rubbed, edges rounded and polished on both sides of 18 mm thick fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.	2.2	sqm	2843.80	6,256.36
16.0	Providing edge moulding to 18 mm thick marble stone counters, vanities etc., including machine polishing to edge give high gloss finish etc. complete as per design approved by Engineer - in - Charge. (i) Granite Work	5	Metre	125.00	625.00
17.0	Providing and fixing pre-coated galvanised iron designer profile sheets ( <i>Durashine Tiles</i> ) at any level (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+0.05%) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling / self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. (Make -Tata Bluescope)	38	Sqm.	554.76	21,080.88

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
18.0	Providing and fixing precoated galvanised steel sheet Ridges plain (500 - 600mm), 0.50 mm (+0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws all complete :	9	Mtr.	368.02	3,312.18
19.0	M.S. structural works with hollow sections ( square or rectangular) conforming to IS: 806-1957 & IS:1161-1958) connected to one another with bracket, gusset, cleat as per design, drawing & direction of Engineer-in-Charge complete including cutting to requisite shape & size, fabrication including metal arc welding conforming to IS: 816-1956 & IS: 9595 using electrodes of approved make and brand conforming to IS:814- 1957, haulage, hoisting and erection all complete.  The rate includes the cost of all M.S. Hollow section, all consumables such as electrodes, gas and hire charges of all tools and plants and labour required for execution and all incidental chages (such as electricity, labour insurance) etc. all complete.  Payment to be made on the basis of calculated weight of structural memebhrs of MS Holow Section as specified in relevent IS code in finished work. Payment for gusset, bracket, cleat may be made by adding the actual weight of such items with weight of finished structural members. The rates are considered for a hight of erection 8 m. / 2nd floor level from the ground. For roof truss works, Span up to 12 Mtr (Make& Brand: Tata Structura)	0.25	MT	72,316.00	18,079.00
20.0	M.S. or W.I. Ornamental grill of approved design joints continuously welded with M.S, W.I. Flats and bars of windows, grill gate, railing etc. fitted and fixed with necessary screws and lugs with all necessary hanging and locking arrangements. Grill weighing above 16 Kg./sq.mtr and above.	50	Kg	96.96	4,848.00
21.0	Providing, fitting and fixing anodized aluminium windows and ventilators of standard sections without horizontal glazing bars joints mitred and welded (manufactured to relevant IS specifications) fitted with 6mm X 3.15mm lugs 100mm long embedded in CC blocks 150mm X 100mm X 100mm in 1:3:6 mix including providing and fixing device, locking arrangement, spring catch as required complete as specified and directed for all levels.	2.5	Sqm	2,000.00	5,000.00

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
22.0	Applying Interior grade Acrylic Primer of approved quality and brand on plastered or concrete surface in old or new work to receive Distemper/ Acrylic emulsion paint including scraping and preparing the surface thoroughly, complete as per manufacturer's specification and as per direction of the EIC at any floor. Water based interior grade Acrylic Primer <i>One coat</i> .	80	Sqm.	30.80	2,464.00
23.0	Applying Acrylic Emulsion Paint of approved make and brand (Asian Paints Apcolite/ ICI Dulux Super Clean / Berger Easy clean) on walls and ceiling including sand papering in intermediate coats including putty (to be done under specific instruction of Superintending Engineer) : <i>Two coats</i> with Luxury Quality.	80	Sqm.	70.00	5,600.00
24.0	Applying Exterior grade Acrylic primer of approved quality and brand (ICI Weathershield Alkalibloc or equivalent) on plastered or concrete surface old or new surface to receive decorative textured (matt finish) or smooth finish acrylic exterior emulsion paint including scraping and preparing the surface thoroughly, complete as per manufacturer's specification and as per direction of the EIC at any floor. One Coat. (Make: ICI/ Asian Paints/ Berger/ Nerolac)	75	Sqm.	31.40	2,355.00
25.0	Protective and Decorative Acrylic exterior emulsion paint of approved quality and brand (ICI weathershild Max, Apex ultima of Asian paint, Berger Weathercoat All guard or equivalent), as per manufacturer's specification and as per direction of Engineer-In-Charge to be applied over acrylic primer as required. The rate includes cost of material, labour, scaffolding and all incidental charges but excluding the cost of primer. Super protective 100% Acrylic Emulsion	75	Sqm.	84.00	6,300.00
26.0	Priming one coat on steel or other metal surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc. (This item is applicable to new work or old work when the original surface has been exposed by removal of old paint)	5	Sqm.	29.00	145.00
27.0	Painting with best quality synthetic enamel paint of approved make and brand (ICI Dulux 5 in 1 or Equivalent) including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary. Two coats (with any shade except white) with super gloss (hi-gloss) of approved quality on steel or other metal surface.	5	Sqm.	79.00	395.00

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
28.0	Supplying, fitting and fixing PVC pipes of approved make of <b>Schedule 80 (medium duty)</b> conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, long screw, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials and two coats of painting with approved paint in any position above ground. (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accessories, specials. Payment for painting will be made separately) For Concealed work.				
28.1	20 mm dia	24	Metre	158.00	3,792.00
28.2	25 mm dia	30	Metre	205.00	6,150.00
29.0	Supplying, fitting & fixing UPVC pipes B- Type and fittings conforming to IS:13592-1992 with all necessary clamps nails, including making holes in walls, floor etc. cutting trenches in any soil through masonry concrete structures etc if necessary and mending good damages including joining with jointing materials (Spun Yarn, Valamoid/Bitumen/M-Seal etc) complete. (Make: Supreme, Oriplast or equivalent)				
29.1	UPVC Pipe: 75mm dia.	24	Metre	196.00	4,704.00
29.2	UPVC Pipe: 110mm dia.	24	Metre	292.00	7,008.00
	<b>UPVC Fittings</b>				
29.3	Plain Tee: 75 mm dia.	2	Each	46.00	92.00
29.4	Plain Tee: 110 mm dia.	2	Each	85.00	170.00
29.5	Door Tee: 75 mm dia.	1	Each	101.00	101.00
29.6	Door Tee: 110 mm dia.	1	Each	195.00	195.00
29.7	Bend 87.5 degree: 75 mm dia.	3	Each	61.00	183.00
29.8	Bend 87.5 degree: 110 mm dia.	3	Each	120.00	360.00
29.9	Door Bend 87.5 degree: 75 mm dia.	2	Each	83.00	166.00
29.10	Door Bend 87.5 degree: 110 mm dia.	2	Each	147.00	294.00
29.11	Plain Floor Trap without Top tile & Strainer 75 mm	5	Each	144.00	720.00
29.12	Vent Cowl: 75mm dia.	1	Each	25.00	25.00
29.13	Vent Cowl: 110mm dia.	1	Each	33.00	33.00
29.14	P-Trap: 110mm x 110mm	4	Each	281.00	1,124.00
30.0	Supplying, fitting and fixing Orissa pattern water closet in white glazed vitreous chinaware of approved make in position complete excluding 'P' or 'S' trap (excluding cost of concrete for fixing). Size: 580 mm X 440 mm.	4	Each	1,613.00	6,452.00

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
31.0	Supplying, fitting and fixing E.W.C. in white glazed vitreous chinaware of approved make complete in position with necessary bolts, nuts etc. With 'S' trap	2	Each	1,512.00	3,024.00
32.0	Supplying, fitting and fixing 10 litre P.V.C. low-down cistern conforming to I.S. specification with P.V.C. fittings complete, C.I. brackets including two coats of painting to bracket etc. (Make: Parryware / Hindware)	6	Each	1,015.00	6,090.00
33.0	Supplying, fitting and fixing Closet seat of approved make with lid and C.P. hinges, rubber buffer and brass screws complete. (a) E.W.C. Bestolite (solid type) white.	2	Each	715.00	1,430.00
34.0	Supplying, fitting and fixing 32 mm dia. PVC Flush Pipe of approved make with necessary fixing materials and clamps complete.	6	Each	155.00	930.00
35.0	Supplying, fitting and fixing Half stall urinal in white vitreous chinaware of approved make in position with brass screws on 75 mm X 75 mm X 75 mm wooden blocks complete. Size: 470 mm X 280 mm X 340 mm	3	Each	945.00	2,835.00
36.0	Supplying, fitting and fixing white vitreous china best quality approved make wash basin with C.I. brackets on 75 mm X 75 mm wooden blocks, C.P. waste fittings of 32 mm dia., one approved quality brass C.P. pillar cock of 15 mm dia., C.P. chain with rubber plug of 30 mm dia., approved quality P.V.C. waste pipe with C.P. nut 32 mm dia., 900 mm long approved quality P.V.C. connection pipe with heavy brass C.P. nut including mending good all damages and painting the brackets with two coats of approved paint. (ii) 550 mm X 400 mm size (Make: Hindware/Parryware)	1	Each	2,208.00	2,208.00
37.0	Supplying, fitting and fixing pedestal of approved make for wash basin (white) (Make: Hindware/Parryware).	1	Each	1,497.00	1,497.00
38.0	Supplying, fitting and fixing bib cock or stop cock.				
38.1	Chromium plated Bib Cock with wall flange (Equivalent to Code No. 5047 & Model - Florentine of Jaquar or similar brand).	4	Each	861.00	3,444.00
38.2	Chromium plated angular Stop Cock with wall flange (Equivalent to Code No. 5053 & Model - Florentine of Jaquar or similar brand).	12	Each	815.00	9,780.00
38.3	Supplying, fitting and fixing pillar cock of approved make CP Pillar Cock - 15 mm. (Code No. 5011 & Model - FLORENTINE of JAQUAR or equivalent).	3	Each	857.00	2,571.00
38.4	CP 2-way bib Cock - 15 mm, supplied, fitted and fixed. (Code No.5041 & Model - FLORENTINE of JAQUAR or similar brand).	2	Each	1,269.00	2,538.00

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
38.5	Hand Shower (Health Faucet) with 1mtr Flexible Tube with Wall Hook(Equivalent to Code No.573 & Model - ALLIED of Jaquar or similar)	2	Each	1,251.00	2,502.00
39.0	Supplying,fitting and fixing approved brand P.V.C. CONNECTOR white flexible, with both ends coupling with heavy brass C.P. nut, 15 mm dia.				
39.1	450mm long	3	Each	82.00	246.00
39.2	600mm long	6	Each	107.00	642.00
39.3	750mm long	3	Each	117.00	351.00
40.0	Supplying, fitting and fixing bevelled edged mirror 5.5 mm thick silver red as per I.S. 3438 / 1965 together with brass C.P. hinges of size 600 mm X 450 mm	3	Each	484.00	1,452.00
41.0	Supplying, fitting and fixing towel rail with two brackets C.P. over brass. Size: 25 mm dia. and 600 mm long.	6	Each	430.00	2,580.00
42.0	Supplying, fitting and fixing Cromium plated liquid soap container.	3	Each	393.00	1,179.00
43.0	Supplying, fitting and fixing of CPVC Ball Valve conforming to IS-15778 : 2007 of approved make / brand. 25 mm dia.	2	Each	239.00	478.00
44.0	Supplying & fixing 4mm thick bubble free float glass (coloured / tinted / smoke) of approved make and brand conforming to IS: 2835-1987.	3	Sqm	468.00	1,404.00
45.0	Supplying & fitting approved type C.I. ventilator of 5mm thick (Above 0.10 Sqm area) in position after cutting holes in walls setting in cement mortar mending damages to wall and plaster and two coats of paint of approved brand of any shade.	6	Each	96.00	576.00
46.0	Dismantling of old toilet blocks and removal of all unserviceable materials, rubbish, earth etc. from the working site and disposal of the same beyond the compound by mechanical transport, in conformity with the Municipal /Corporation Rules for such disposal and cleaning the site in all respect as per direction of Engineer in charge including all necessary tools & tackles, labour etc.	1	L.S.	10,000.00	10,000.00

Cost of Civil works ::: 4,40,998.23

GST, as applicable over cost of Civil work @ 12% ::: 52,919.79

Cost of Civil works excluding labour welfare cess ::: 4,93,918.02

Labour welfare cess @ 1% ::: 4,939.18

**Total amount of Civil Work ::: 4,98,857.20**

**Say Rs. 4,98,857.00**



Sl. No.	Description of item	Qty.	Unit	Rate	Amount
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**NOTE :**

- 1 Tenderers should visit the site before quoting the rate to understand the nature of work and condition of the site.
- 2 Rates shall be quoted inclusive of all materials, **wastage**, labour, shifting charges, **taxes & duties** etc. required for this job. No additional payment shall be done by the BITM for this purpose.
- 3 The work shall be required to carry out without obstructing the visitor's movements and may also be required to carry out beyond office hours (if required) for which no additional payment shall be made.
- 4 The work will be carried out after following all respective precautionary measure and safety rules. Expenditure towards insurance coverage for the labourers working at site has to be included in the rate.
- 7 Regarding the work directives of the Engineer-in-Charge shall be final and binding.
- 8 All materials must be approved by the Engineer-in- Charge before supplying at site.

**List of Approved materials :**

- i) Cement: OPC 53 Grade of Ultratech/ ACC/ Lafarge/ Ambuja make
- ii) Reinforcement: JSW/ JSPL/ SHYAM/ SRMB/ BMASL/ ELECROSTEEL/ SSL.
- iii) Ceramic tiles: Kajaria/ Johnson/ Orient/ Somany/ Vermora.
- iv) Exterior Acrylic Emulsion: Asian paints Apex Ultima/ ICI Dulux Weathershild Max/ Berger Weathercoat All guard.
- v) Interior Acrylic Emulsion: Asian Paints Apcolite/ ICI Dulux Super Clean / Berger Easy clean.
- vi) Synthetic Enamel: Asian paints/ ICI Dulux/ Berger.
- vii) Vitreous Chinaware fixture: Hindustan/ Parry ware/ CERA/ Hindware/ Neycer.
- viii) PVC Pipe & Fittings: Ori-plast/ Supreme/ Ashirvad/ Astral.
- ix) PVC Cistern, Sit cover & Fittings: Reliance Classic/ Hindware/ Parryware.
- x) CP brass Bib cock, Stop Cock, Angular etc: Jaquar, Essco, Marc.

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Signature of the Contractor