

**BOQ**

Name of Work: Renovation of toilet in academic complex at Core-II, IITG Campus (Group-E).

Sl no.	Description of Items	Unit	Qty	Rate	Rate in words	Amount
	<b>Part-A : Building Works</b>					
1	Dismantling of existing works including disposal of the spoils at places as directed by Engineer in Charge.					
a	Brick work in mortar in all proportions.	cum	40.00			
b	Concrete of all grades	cum	3.00			
c	Sunken floors	cum	60.00			
c	Ceramic tiles from wall and floors	sqm	650.00			
2	<b>EARTH WORK IN EXCAVATION</b>					
	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains including dressing of sides and ramming of bottoms, for all lifts and including getting out the excavated soil and disposal of surplus excavated soil as directed, within the campus.					
	All kinds of soil.	cum	20.00			
3	<b>PLAIN CEMENT CONCRETE WORK:</b>					
	Providing and laying in position cement concrete upto floor V level excluding cost of centering and shuttering					
a	in the ratio of 1:2:4 (1 cement:2 coarse sand: 4 coarse aggregate of 20mm nominal size.	cum	20.00			

b	in the ratio of 1:5:10 (1cement : 5 coarse sand : 10 brick bat of size 40mm nominal size).	cum	54.00			
4	<b>CENTERING AND SHUTTERING:</b>					
	Centering and shuttering including strutting, propping etc. & removal of form at all heights and levels for all types of works	sqm	40.00			
5	<b>REINFORCEMENT:</b>					
	Reinforcement for RCC work including straightening, cutting, bending, binding with iron black wire 20 gauge & placing in position complete as per drawing.					
	TMT bars as per relevant IS code Fe-500	kg	100.00			
6	<b>BRICK WORK:</b>					
	Brick work with bricks of class designation 75 in in cement mortar in all types of works.					
a	Full brick work with bricks in cement mortar 1:6 (1 cement : 6 coarse sand)	cum	30.00			
b	Half brick masonry in cement mortar 1:4 ( 1 cement : 4 coarse sand)	sqm	50.00			
7	<b>WATER PROOFING</b>					
i	Providing water proofing treatment with best quality acrylic polymer modified cementitious composite slurry coating and fibre glass cloth of approved brand over sunken floors, terraces, tapered roofs etc. as per technical specifications and as directed by Engineer-in-Charge.	Sqm	1230.00			
ii	Providing 12mm thick plaster to protect waterproofing treatment in cement mortar 1:4 (1 cement : 4 coarse sand)	Sqm	1230.00			

8	<b>DOORS AND WINDOWS</b>					
a	Providing and fixing anodized aluminium work for doors, windows, ventilators, sliding window and participations with extruded built up standard tubular and other sections of approved make confirming to IS:733 and IS:1285, colour anodized according to IS:1868 (Minimum anodic coating of grade AC15), 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 sealants and PVC / neoprene felt etc. to make fully water tight. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, aluminium snap beading for glazing / panelling, C.P. / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-Charge. (Glazing and panelling to be paid for separately)					
i	For fixed portion	kg	300.00			
b	Providing fitting & fixing glazing in aluminium doors, windows, ventilator shutters and partitions etc. with PVC / neoprene gasket etc. complete as per architectural drawings and the directions of Engineer-in-Charge. With froasted glass panes of 5.00 mm thickness	sqm	20.00			
c	Providing and fixing aluminium sliding door bolts, ISI marked anodised anodic coating not less than grade AC 10 as per IS : 1868), dyed to required colour or shade, with nuts and screws etc. complete : 250x16 mm	each	18.00			
d	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868 ) dyed to required colour or shade, with necessary screws etc. complete : 150x10 mm	each	20.00			
e	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868)r dyed to required colour or shade, with necessary screws etc. complete : 125 mm	each	36.00			

f	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) dyed to required colour and shade, with necessary screws etc. complete. Twin rubber stopper	each	20.00			
9	<b>Window Sill</b>					
	Providing and fixing markana Chak doongri marble stone 18 mm thick, (average) over 20 mm thick base mortar of proportion 1:3 (1 cement: 3 coarse sand) laid and jointed with cement slurry including rubbing and polishing complete in all respects including cutting the stone to make notch/offset on all corners vertical and horizontal and make as per notch details in drawing and directed (in window sill)	sqm	10.00			
10	<b>TILES WORKS</b>					
a	Providing and laying of vitrified matt finish tiles of minimum thickness 7.8 mm of approved design and manufacturer without warpage of approved design and manufacturer laid on 20mm thick cement mortar 1:4 (1 cement:4 coarse sand) including filling the joints with approved joint filler of matching shade and approved manufacturer as per manufacturers specification etc. and cleaning the surface with detergent and water complete 600mmx 600mm in floors	sqm	150.00			
b	Providing and fixing 1st class glazed ceramic tile of approved design of min. thickness 5.6mm in dado in any pattern and size over 12mm thick cement plaster 1:3 ( 1 cement : 3 coarse sand) jointed with jointing compound of matching shade and approved manufacture complete as directed. 300mmx450mm	sqm	500.00			
c	Providing and fixing 18mm thick mirror polish granite slab of approved colour etc. over 20mm cement mortar 1:3 (1 cement : 3 coarse sand) all complete.Over wash basin counter/ snacks counter including cutting holes for wash basins and moulding of the exposed nose in proper shapes as directed by the Engineer in Charge, etc.	sqm	10.00			
11	<b>FINISHING:</b>					
a	12mm thick cement plaster on even surface of wall with cement mortar 1:4 ( 1 cement : 4 coarse sand).	sqm	100.00			

b	15mm thick cement plaster on rough side of single or half brick wall of Mix 1:4 ( 1 cement : 4 coarse sand).	sqm	150.00			
c	6mm plaster to ceiling and beams in cement mortar 1:3 ( 1 cement : 3 coarse sand).	sqm	100.00			
d	Applying one coat of cement primer of approved brand and manufacture on interior wall surface.	sqm	300.00			
e	Providing & applying distemper with acrylic washable distemper of approved brand manufacture to give an even shade (two or more coats) and including application of a thin layer of wall care putty of approved brand and manufacturer over entire surface including removal of undulations and sand papering the same to received one priming coat followed by two or more coats of acrylic distemper complete in all respect.	sqm	2400.00			
f	Applying priming coat :With ready mixed yellow zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	sqm	1100.00			
g	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : Two or more coats on new work	sqm	300.00			
h	Applying priming coat :With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	sqm	60.00			

12	<p>Providing and fixing Greenlam sturdo vibrance serene <b>toilet cubicle</b> or equivalent (of following standard dimension which includes <b>600mm door size width</b>) made of heat, bacteria, water, chemical, scratch, impact and anti-bacterial resistant 12mm thick solid compact laminate panels tested by Shriram Test House. Finish of the compact laminate should be Suede/Raw silk, which includes doors, pilasters and intermediate panels finished with approved texture/shade as per the detail drawings and as per <b>IS 2046</b> (Indian Standard) and as per fire retardant <b>BS-476/97</b> standard. The product should have Green Guard certificate.</p>					
	<p>This also includes providing and fixing in position necessary hardware made out of nylon polymide grade-6 and aluminium powder coated top rail as per manufacturer's specifications and architects instructions like (1) Door knob, (2) Gravity Hinges, (3) Thumbnail turn lockset indicators, (4) aluminium top rail, (5) Coat hooks, (6) U-channels, (7) Adjustable foot, (8) Noise deafening tape, (9) Screws &amp; Wall plugs etc.The top fitting should consist of <u>aluminium powder coated top rail which will get fixed with Mid &amp;</u></p>					
	<p>All screws will of 304 grade in stainless steel with satin finish. Top rail is extruded aluminium will be powder coated or anodized (grade 6063 Micron aluminium). All pilasters are supported by grade-6 nylon polyamide thermoplastic palm design pedestal footing with non-corrosive steel inserts. the base diameter 65mm and neck diameter of 33mm anchored to the floor with grade 304 satin finish stainless steel screws with push fit capping at a clearance height of 150mm. Model is heat and bacterial resistant polyamide in which aluminium U-channel will be used for the fixing</p>					
	<p>Toilet cubicle with standard dimension of 1995mm heightx1000mm width x 1550mm depth, which <b>includes 600mm door size width.</b></p>					
	<p>Toilet cubicle I-shape (front partition) with standard dimension of 1995mm height x 1000mm width which includes 600mm door size width.</p>	Each	18.00			

Total Part A					
	<b>PART-B SANITARY AND WATER SUPPLY WORKS.</b>				
1	Providing and fixing water closet squatting pan (Indian type W.C. pan ) with 100 mm sand cast Iron P or S trap, 10 litre low level flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required: White Vitreous china Orissa pattern W.C. pan of size 580x445x260 mm with integral type foot rests. Jaquar make CAT No. CNS WHT 451 & Cistern WHC- WHT-184	each	4.00		
2	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, C.P. brass hinges and rubber buffers, 10 litre low level flushing cistern with fittings and brackets 40 mm flush bend 20 mm overflow pile with specials of standard make and mosquito proof coupling of approved design complete painting wherever required including cutting and making good the walls and floors wherever required. Jaquar Make (WC- CNS- WHT 951S, Cistern - WHC-WHT-184)	each	18.00		
3	Providing and fixing white vitreous china wash basin including cutting and making good the walls wherever required. Oval wash basin of size 550 x 400mm with single quarter turn 15mm CP brass pillar cock cat.no.5001 of JAQUAR Florentine	each	18.00		
4	Providing and fixing glass mirror of superior quality of minimum thickness 5mm of required size with polished edges with 6mm thick ply board backings, including rawl plugs for fixing with C.P. brass screws and washers, over wash basins complete.	each	18.00		
5	Providing and fixing towel rail of size 600 x 20 mm complete with brackets,rawl plugs for fixing brass screws C.P. brass towel rail with two C.P. brass screws.	each	12.00		

6	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350mm with electrically operated concealed electronics flushing system and standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass including painting of fittings and cutting and making good the walls and floors wherever required	each	16.00			
7	Providing and fixing urinal partition with both sides polished granite stone table rubbed and polished of size 1050 x 600 deep & 18 mm thick, corner chamfered fixed in brick wall with cement mortar 1:3 (1 cement : 3 coarse sand) including cutting the chase on wall & finish the wall good & smooth all complete.	metre	18.00			
8	Providing and fixing approved make stainless steel soap tray with necessary screws for wash basin.	each	18.00			
9	Providing and fixing PVC waste pipe of standard pattern for wash basins, sinks etc. of approved make.					
	32 mm dia	each	20.00			
10	Providing and fixing C.P. Brass Bottle trap including fisher union for wash basin and sink					
a	32mm dia	each	24.00			
b	Providing and fixing of two way bib cock .FLR-5041N of JAQUAR.	each	30.00			



c	Providing and fixing of single lever basin mixer with 450mm long braided hoses FLR-5001B of JAQUAR.	each	18.00			
11	Providing and fixing of Angular Stop cock with wall flange FLR-5053N with 450mm long braided hose.	each	36.00			
12	Providing and fixing of 40mm Metropole dual flush valve FLV-1089 SQ of Jaquar.	each	18.00			
13	Providing and fixing PVC grating with frames of approved quality complete.					
a	65 mm	each	20.00			
b	100 mm	each	60.00			
14	Providing and fixing on wall face un-plasticised-Rigid PVC sewer pipes conforming to IS:13592 type-B including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion single socketed pipes with all accessories as clamps, bend, door, horn bend,shoe, cowl etc. complete as directed :					
	110 mm dia	metre	400.00			

15	Providing and fixing un-plasticised-Rigid PVC sewer pipes conforming to IS:13592 type-B including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion single socketed pipes with all accessories as clamps, bend, door, horn bend,shoe, cowl etc. complete including trenching and refilling complete as directed :					
a	110 mm dia	metre	400.00			
b	150 mm dia	metre	60.00			
16	Providing & fixing in position un-plasticised-Rigid PVC waste pipes with necessary fittings, cutting & chasing walls/floors etc. and making good the same.					
a	40 mm	metre	60.00			
b	65 mm dia	metre	40.00			
c	100 mm dia	metre	40.00			
17	Providing and fixing UPVC floor trap with 100mm inlet and 100mm outlet with PVC grating with frame.	each	40.00			
18	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes PN-16, SDR 7.4 U V stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply including all PPR plain, brass threaded polypropylene random fittings including fixing the pipe with clamps at 1.00 m spacing. This includes the cost of cutting chases in the walls etc. and making good the same including testing of joints complete as per direction of Engineer in Charge.					
a.	25mm OD	metre	300.00			

b	40mm OD	metre	300.00			
19	Providing and fixing approved brand 3 layered PPR ( Poly Propylene Random Copolymer) pipes PN-16 and SDR-7.4 outer UV stabilised green coloured inner antimicrobial fusion welded having thermal stability for hot and cold water supply including all PP-R plain & brass threaded polypropylene random fittings including trenching and refilling, saddles @1.5 m C/C etc. & testing of joints complete as per direction of Engineer-in-Charge.(external work)					
a	50 mm OD	metre	150.00			
20	Providing and fixing brass full way spherical valve with lever wheel IS marked (Zoloto make)					
a	25 mm nominal bore	each	24.00			
b	32 mm nominal bore	each	4.00			
c	50 mm nominal bore	each	6.00			
21	Providing, fixing, testing and commissioning etc. of G.I. Pipes of all diametres complete with G.I. fittings and clamps including painting with anti corrosive bitumastic paint etc., including trenching and refilling etc. (external work)					
a	50 mm nominal bore heavy duty (Tata make)	metre	200.00			

23	Constructing brick masonry manhole with 75 class designation bricks in cement mortar 1 : 5 ( 1 cement : 5 coarse sand) R.C.C. top slab with 125mm thick RCC in proportion 1 : 2 : 4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), 125mm thick RCC bed concrete 1:2:4 mix ( 1 cement : 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) with reinforcement, inside plastering 12 mm thick with cement mortar 1: 3 (1 cement : 3 coarse sand ) finished with a floating coat of neat cement and making channels in cement concrete 1 : 2 : 4 mix ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) neatly finished complete as per design but excluding the cost of reinforcement but including the cost of centering and shuttering.					
a	Inside size 90 cm x 80 cm and 60 cm deep including circular FRP composite manhole cover with frame (heavy duty) 530 mm dia With F.P.S. bricks.	each	6.00			
24	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls floors with cement concrete 1:2:4 ( 1 cement : 2 coarse sand : 4 grade stone aggregate 20mm nominal size),cement plastered on both sides with cement mortar 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for drain etc.250-300mm dia	each	20.00			
25	Providing and fixing of Health faucet CAT NO. ALD-CHR-579	each	30.00			
26	Providing and fixing					
a	Hand rail for PH (cera make, Cat No 82210102)	Rm	2.00			
b	Grab bar for PH (Cera, CAT no 82210106) 600 mm	Rm	8.00			

c	Grab bar for PH (Gera, CAT no 82210106) 300 mm	Rm	8.00			
				<b>Part B Total</b>		
				<b>Grand Total (Part A + B)</b>		
				<b>Rebate, if any @ .....</b>		
				<b>Total, after rebate</b>		
				<b>Say Total</b>		
<b>Total, in words:</b>						