

BILL OF QUANTITIES
FOR
RENOVATION OF SANITARY & PLUMBING WORKS
OF
HALL OF RESIDENCE-2, 3, 4, 5 & L.H
FOR
NATIONAL INSTITUTE OF TECHNOLOGY
AT
ROURKELA
ORISSA

CONSULTANT:-

**M/S. DESIGN TECHNO
KOSTUV TOWER, 2ND FLOOR
BIKASH NAGAR, BADAMBADI,
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HALL-2,3,4 , 5 & L.H

SANITARY AND PLUMBING WORK

SL.NO	DESCRIPTION	AMOUNT Rs.
1	<u>SECTION:1</u> SANITARY & PLUMBING WORK	
2	<u>SECTION:II</u> WATER SUPPLY	

(TOTAL ESTIMATED COST OF RUPEES .

HALL-2,3,4 , 5& L.H
SANITARY & PLUMBING WORKS:

SL.NO	DESCRIPTION	UNIT	QUANTITY	RATE Rs	AMOUNT Rs
1.	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast iron P or S trap, 10 litre low level white P.V.C flushing cistern with manually controlled device (handle lever) conforming to IS: 7231, Parryware/ Hindware / Seabird / Orient (Coral) with all fittings and fixtures complete including cutting and making good the walls and floors whenever required				
i)	White Vitreous china Long pan pattern W.C. pan of size 580mm	Each	30.0		
2	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan)with seat and lid, 10 liter low level white P.V.C. flushing cistern with manually controlled device (handle lever). Conforming to IS: 7231, Parryware/ Hindware / Orient (Coral) with all fitting complete including cutting and making good the walls and floors wherever required.				
i)	W.C.Pan ISI marked black solid plastic seat and lid	Each	14.0		
3.i)	Providing and fixing white vitreous china wash basin of approved make with C.I/M.S. brackets 15mm C.P. brass waste of standard pattern, including painting of fitting and bracket, cutting and making good the walls wherever require Flat back wash basin size 550x400mm with single 15mm C.P. brass basin mixture.	Each	26.0		
4	Providing and fixing Salem stainless steel A ISI 304 (18/8) kitchen sink as per IS 13983 with C.I. brackets and stainless plug 40mm including painting of fitting and brackets, cutting and making good the walls wherever required.				
i)	Kitchen sink without drain board 610mmx510mm bowl depth 200mm	Each	5.0		

SL.NO	DESCRIPTION	UNIT	QUANTITY	RATE Rs	AMOUNT Rs
5	Providing & fixing flat back wall hung Urinals with PVC connecting pipes for flushing.	Each	30.0		
6	Providing and fixing 600x450x6mm beveled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with CP cap, brass screws and washers complete.	Each	100.0		
7	.Providing and fixing 300mmx300x, 18mm thick polished marble shelf as per drawing with edges rounded off and fixed to the wall finishing all complete	Each	648.0		
8	Providing and fixing C.P. robe hook(heavy type) complete with brackets fixed to wooden cleats with C.P. brass screws.	Cum	324.0		
9	Providing and fixing C.P. towel rail complete with bracket fixed to wooden cleats with C.P brass screws				
i)	600mmx20mm size	Each	324.0		
ii)	Towel ring 150mm dia.	Each	20.0		
10	Providing and fixing soil, waste and vent pipes.				
i)	100mm. dia Sand cast iron S&S pipe	Meters	500.00		
ii)	75mm,dia Sand cast iron S& S pipe	Meters	100.00		
11	Providing and fixing bend of required degree with access doors, insertion rubber washers 3mm thick bolts and nuts complete.				
i)	100mm.dia Sand cast iron S&S.	Each	20.0		
ii)	75mm dia. Sand cast iron S&S.	Each	10.0		

SL.NO	DESCRIPTION	UNIT	QUANTITY	RATE Rs	AMOUNT Rs
12	Providing and fixing plain bend of required degree.				
i)	100mm. dia Sand cast iron S&S	Each	20.0		
ii)	75mm.dia Sand cast iron S&S.	Each	5.0		
13	.Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete.				
i)	100mmx100mmx110mm. dia. Sand cast iron S&S	Each	20.0		
ii)	75mmx75mmx75mm. dia Sand cast iron S&S.	Each	5.0		
14	Providing and fixing terminal guard. (Cowl)				
ii)	100mm.dia Sand cast iron S&S.	Each	20.0		
ii)	75mm. dia. Sand cast iron S&S.	Each	5.0		
15	Providing lead caulked joints to sand cast iron/ centrifugally cast (spun) iron pipes and fitting of diameter.				
i)	100mm.dia	Each	200.0		
ii)	75mm.dia	Each	50.0		
16	Providing and fixing sand cast iron trap of self cleansing design with sand cast iron screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors.				
i)	100mm. inlet and 100mm. outlet	Each	20.0		
ii)	75mm. inlet and 75mm. outlet	Each	5.0		

SL.NO	DESCRIPTION	UNIT	QUANTITY	RATE Rs	AMOUNT Rs
17	Cutting chases in brick masonry walls for following diameter sand cast iron pipes and making good the same with cement concrete 1:3:6 (1 cement :3 coarse sand :6 graded stone aggregate 12.5mm nominal size)including necessary plaster and pointing in cement mortar 1:4(1 cement :4 coarse sand)				
i)	100mm. dia.	Each	200.0		
18	Painting sand cast iron/ soil, waste vent pipes and fitting with two coats of synthetic enamel paint of any colour such as chocolate grey, or buff etc. over a coat of primer (of approved quality) for new work.				
i)	100mm. dia	Meters	600.0		
ii)	75mm. dia.	Meters	100.0		
19	Providing and fixing stainless steel jali (grating) of approved quality with or without hole for waste pipe for floor.				
i)	125mm. dia. C.P. grating (heavy duty)	Each	200.0		
ii)	150mm dia. C.O. grating (heavy duty)	Each	150.0		
iii)	200mm.dia. C.P. grating (heavy duty)	Each	100.0		
20	Providing & fixing soap disc of best available local quality of approved make and manufacture as per Engineer-in-charge or Architect.				
		Each	360.0		
21	Providing and fixing 10liter capacity low level white P.V.C. flushing cistern with manually controlled device(handle level)				
		Each	70.0		

TOTAL Rs.

WATER SUPPLY

SL.NO	DESCRIPTION	UNIT	QUANTITY	RATE Rs	AMOUNT Rs
1.	<u>PIPES (TATA MEDIUM) AND FITTING:-</u>				
i)	Providing and fixing G.I. Pipes (TATA medium or equivalent) complete with G.I fittings in pumps ,including cutting and making good the walls etc.(internal work) Exposed on wall.				
a)	80mm. dia. Nominal bore.	Meters	36.0		
b)	25mm. dia .Nominal bore.	Meters	400.0		
c)	32mm. dia Nominal bore.	Meters	1600.0		
d)	40mm. dia. Nominal bore.	Meters	1200.0		
e)	50mm.dia .Nominal bore.	Meters	200.0		
ii)	Concealed pipe including painting with a non corrosive bitumastic paint, cutting chases and making good the wall.				
a)	15mm. dia. Nominal bore.	Metres	2000.0		
b)	20mm. dia Nominal bore.	Metres	1800.0		
c)	25mm. dia Nominal bore.	Metres	1200.0		
2	<u>BRASS FITTING:</u> Providing and fixing gun metal gate valve (with ISI marked) with C.I. wheel approved quality (screwed end)				
i)	25mm. dia. Nominal bore	Each	32.0		
ii)	32mm. dia Nominal bore	Each	32.0		
iii)	40mm. dia. Nominal bore	Each	32.0		
iv)	50mm. dia Nominal bore	Each	16.0		
v)	80mm. dia. Nominal bore.	Each	4.0		

SL.NO	DESCRIPTION	UNIT	QUANTITY	RATE Rs	AMOUNT Rs
3	Providing and fixing C.I. Sluice valve (with cap) complete with bolts, nuts, rubber insertions etc(tail piece if required will be paid separate).Class 1	Nos	4.0		
4	Painting G.I. pipes (TATA medium or equivalent and fittings with white paint over a ready mixed priming coat, both of approved quality for new work.				
i)	25mm. diameter pipe.	Meters	400.00		
ii)	32mm. diameter pipe.	Meters	1600.00		
iii)	40mm. diameter pipe.	Meters	1200.0		
iv)	50mm. diameter pipes.	Meters	200.0		
v)	80mm. diameter pipes.	Meters	36.0		
5	Providing and fixing C.P. brass bib cock of approved quality conforming to IS :8931.				
i)	15mm. Nominal bore.	Each	80.0		
6	Providing and fixing C.P. brass angle valve for cistern, basin, mixer and geyser points of approved quality conforming to IS: 8931.				
i)	15mm. dia Nominal bore.	Each	64.0		
7	Providing and fixing C.P, connector of approved make.	Each	500.0		
8	Providing and fixing shower set comprising of 1 no. C.P. shower rose, 15mm dia. C.P. inclined shower arm and 15mm dia .C.P. wall mixer etc. complete	Each	166.0		
9	Providing and fixing P.V.C. water storage tank of capacity 2000 lit. over brick work support complet with necessary fittings.	Each	20.0		

TOTAL Rs.

Approved List Manufacturers/ Brand for Civil Works

Approved List to be used in works shall conform to Indian Standards Specification as published from time to time (and in the absence thereof as approved by Engineer – in –charge) in general the mode of measurement of Civil engineering works shall be guided by I.S.I CODE No- 1964 (Revised) for Indian standard Method of measurement of building work.

SL.NO	DESCRIPTION	I.S CODE	APPROVED MAKE
1.	Cement : Ordinary port land cement 43 grade	269 :1967	OCL
2.	Steel : a) mild steel :	432 (Part 1) 1982	TATA/SAIL
	b) High strength deformed steel:	1786: 1985	TATA/SAIL
3.	Sand:	383: 193 or 515 (Revised)	
4	Course Aggregate	383	
5	Lime:	792 :1973	
6	Brick: common brunt building bricks.	1077:1992 (Fifth Revision)	
7	Light Gauge structural steel section	811:1987	
8	Collapsible gate:	10521 :1983	
9	Marble: Block,slab,and tile	1130:1969	
10	Ceramic tile/Glazed tile:	777: 1970	Spartek/Kajaria/Orient/Somany
11	Vitrified porcelain tile		Granamite/diomoite/Kajaria (kerogress)
12	Viny flooring		Tuskar/poly fioor Armstrong
13	Aluminum section : For door window	1984 : 1961	Indal/Beco/OEL
14	Wooden Fiush door:	2202 (part2): 1983	Greenply/Century/Mayer
15	Cement based paint:		Snowcemplus/Durocem
16	Acrylic Emulsion		ICI/Berger/Asian Paints
17	Distemper		ICI/Berger/Asian Paints
18	Synthetic Enamel		ICI/Berger/Asian Paints
19	Water proofing Admixture	2645 and 9103	SIKA/Forsrock/Laticrete
20	Glass/Glazing glass		Modi/guard/saintgobain

Specification of Materials

1	Sanitary Fitting : Hindware/ParryWare
2	CI pipe & fitting :3989 of Jayaswals/NECO Ltd/Similar approved
3	C.P fitting :Jaquar/ESSESS/GEM brand
4	G.I Pipes:Tata make (medium quality)
5	G.i. Fittings “R”/HB/KS brand with ISI marked
6	G.M Valves : Leader/zoloto brand
7	SW pipes :Sonall/Hind brand
8	CI Cover &frame: Local brand /Asian Paint
9	Paint: Jhonson &Nicolson/ICI brand/Asian Paint
10	Kitchen Sink: Nirall or similar approved.
11	Mirror: Golden flsh or similar approved.
12	Sluice Valve: Upadhya or similar approved.
13	Specification for Materials, Measurement & Workmanship as per CPWD & ISI