

**NATIONAL RURAL HEALTH MISSION SCHEME,
UTTAR PRADESH
(Government of Uttar Pradesh)**

Tender

For

**Construction of 100 bedded MCH wing for District Female
Hospital at Shahjahanpur, Uttar Pradesh, under National Rural
Health Mission scheme**

VOLUME-V

Bill of Quantities (Revised)

MARCH - 2013



**HSCC (INDIA) LTD.
(CONSULTANTS & ENGINEERS FOR MEGA HOSPITALS & LABORATORIES)
E-6(A), sector-1, NOIDA(U.P) 201301 (India)**

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PQ tender No. HSCC/NRHM/UP./2013

GENERAL ABSTRACT

Name of Work: Construction of 100 bedded MCH wing for Zila Mahila Chikitsalaya at Shahjahanpur (Uttar Pradesh) under NRHM, U.P.

S.No.	DESCRIPTION	Amount (in Rs)	Quoted % (Percent) below or above in figure	Quoted % (Percent) below or above in words	TOTAL AMOUNT (in Rs.)
1	DSR -ITEMS				
1.1	CIVIL WORK	80,052,412.13			
1.2	PLUMBING WORK	4,232,799.64			
1.3	FIRE FIGHTING WORK	476,143.50			
2	Non DSR Items				
2.1	CIVIL work	8,764,817.00			
2.2	PLUMBING WORK	5,411,612.80			
2.3	FIRE FIGHTING WORK	4,681,782.40			
2.4	ELECTRICAL WORK	18,140,053.00			
2.5	HVAC WORK	4,007,225.00			
2.6	GAS MANIFOLD	8,000,180.00			
2.7	OPERATION THEATER	5,001,700.00			
	Total	138,768,725.47			

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

ABSTRACT OF COST(Civil Work)

S.No	DESCRIPTION OF WORK	DSR AMOUNT	MARKET RATE AMOUNT
1	EARTHWORK	873,836.02	0.00
2	CONCRTE WORK	1,263,869.20	473,460.00
3	RCC WORK	43,460,236.46	0.00
4	BRICK WORK	6,167,032.65	0.00
5	DOORS & WINDOWS	8,615,175.25	873,627.00
6	STEEL WORK	2,253,092.00	0.00
7	FLOORING	7,337,265.80	2,927,085.00
8	CEILING & ROOFING	1,191,139.20	285,000.00
9	FINISHING	7,623,183.50	265,000.00
10	MISCELLANEOUS	748,916.35	3,940,645.00
11	ROAD WORK AND DEVELOPMENT	518,665.70	0.00
	TOTAL	80,052,412.13	8,764,817.00

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
1.00		EARTH WORK						
1.01		Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30cm in depth, 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed.						
a)	2.6.1	All kinds of soil	3580.00	cum	129.35		463073.00	
b)	2.7.1	Ordinary rock	10.00	cum	197.75		1977.50	
c)	2.7.3	Hard rock (blasting prohibited)	10.00	cum	490.10		4901.00	
1.02		Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.						
a)	2.8.1	All kinds of soil.	188.00	cum	130.80		24590.40	

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Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
1.03	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.	2676.00	cum	83.80		224248.80	
1.04		Extra for every additional lift of 1.5 m or part there of in excavation/banking excavated or stacked materials.						
a)	2.26.1	All kinds of soil.						
i)		1.5 to 3.0m	875.38	cum	34.60		30288.08	
1.05	2.27	Supplying and filling in plinth with jamuna sand under floors including, watering. ramming consolidating and dressing complete.	106.00	cum	749.30		79425.80	
1.06		Extra for disposal of excavated earth for additional lead beyond 50m or part thereof upto 9 such additional leads						
a)	1.2.2 a	All kinds of soil	2676.00	cum	16.94		45331.44	
		Total					873836.02	

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Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
2.00		Concrete Work						
2.01		Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:						
a)	4.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	6.00	cum	4514.05		27084.30	
b)	4.1.8	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size).	192.00	cum	3593.30		689913.60	
c)	4.1.10	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)	141.00	cum	3357.40		473393.40	
2.02		Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. up to floor five level, excluding the cost of centering, shuttering and finishing:						
a)	4.2.3	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	9.00	cum	5272.40		47451.60	
2.03	4.10	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 12.5mm nominal size).	83.00	sqm	207.55		17226.65	

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1	1A	2	3	4	5	6	7	8
2.04	4.12	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer specification .	22.00	per 50 kg cement	35.35		777.70	
2.05	4.13	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	83.00	sqm	96.65		8021.95	
2.06	NS	Providing and laying in position cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 broken brick bats 40 mm nominal size) including consolidation etc all complete.	156.00	Cum		3035.00		473460.00
Total							1263869.20	473460.00

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Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
3.00		REINFORCED CEMENT CONCRETE						
3.01		Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.						
		(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately).						
a)	5.33.1	All works upto plinth level	909.40	cum	5242.15		4767211.21	
b)	5.33.2	All work above plinth level upto floor V level	1355.60	cum	5781.50		7837401.40	

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1	1A	2	3	4	5	6	7	8
3.02		Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using fly ash and cement content as per approved design mix, and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering, finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate / retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge.						
		(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately). Fly ash conforming to grade 1 of IS: 3812 (Part-1) only be used as part replacement of OPC as per IS:456. Uniform blending with cement to be ensured in accordance with clause 5.2 and 5.2.1 of IS:456-2000 in the items of BMC and RMC.						
a)	5.40.1	All works upto plinth level	79.00	cum	5519.40		436032.60	
b)	5.40.2	All work above plinth level upto floor V level	142.00	cum	6059.20		860406.40	

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Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
3.03		Add or deduct for providing richer or leaner mixes respectively at all floor levels.						
a)	5.34.1	Providing M-30 grade concrete instead of M-25 grade BMC/ RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum)	576.00	cum	63.20		36403.20	
3.04		Centering and shuttering including strutting, propping etc. and removal of form for:						
a)	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete.	215.00	sqm	166.90		35883.50	
b)	5.9.2	Walls (any thickness) including attached pilasters, buttersesses, plinth and string courses etc.	627.00	sqm	285.15		178789.05	
c)	5.9.3	Suspended floors, roofs, landings, balconies and access platform.	4514.00	sqm	311.20		1404756.80	
d)	5.9.4	Shelves (Cast in situ)	70.00	sqm	311.20		21784.00	
e)	5.9.5	lintels, beams, plinth beams. girders. bressumers and cantilevers.	5632.00	sqm	262.25		1476992.00	
f)	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts.	2772.00	sqm	365.60		1013443.20	
g)	5.9.7	Stairs, (excluding landings) except spiral-staircases	390.00	sqm	326.30		127257.00	

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1	1A	2	3	4	5	6	7	8
h)	5.9.15	Small lintels not exceeding 1.5m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like.	49.00	sqm	166.90		8178.10	
i)	5.9.14	Extra for shuttering in circular work for						
i)		columns	20.00	Sqm	62.24		1244.80	
ii)		Beams	20.00	sqm	57.03		1140.60	
j)	5.9.19	Weather shade, Chajjas, corbels etc., including edges	50.00	sqm	411.10		20555.00	
3.05		Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc. including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured)						
a)	5.11.1	Suspended floors, roofs, landings, beams and balconies (Plan area to be measured).	704.00	sqm	121.65		85641.60	
3.06		Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.						
a)		Thermo-Mechanically Treated bars						
i)	5.22.6	At all levels	403496.00	Kg	62.25		25117626.00	

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1	1A	2	3	4	5	6	7	8
3.07	5.35	Add for using extra cement in the items of design mix over and above the specified cement content therein.	50.00	Qtl	589.80		29490.00	
		Total					43460236.46	

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Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
4.00		BRICK WORK						
4.01		Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:						
a)	6.1.2	Cement mortar 1:6 (1 cement: 6 coarse sand)	132.00	cum	3316.55		437784.60	
4.02		Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level						
a)	6.4.2	Cement mortar 1:6 (1 cement: 6 coarse sand)	906.00	cum	3876.15		3511791.90	
4.03		Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in :						
a)	6.12.2	cement mortar 1:4 (1 cement: 4 coarse sand)	10.00	sqm	416.95		4169.50	
4.04		Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.						
a)	6.13.2	Cement mortar 1:4 (1 cement :4 coarse sand)	4086.00	sqm	476.85		1948409.10	

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1	1A	2	3	4	5	6	7	8
4.05	6.15	Extra for providing and placing in position 2 Nos. 6mm dia. M.S. bars at every third course of half brick masonry (with F.P.S. bricks).	4096.00	sqm	63.30		259276.80	
4.06	6.44	Brick edging 7cm wide 11.4 cm deep to plinth protection with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	215.00	Metre	26.05		5600.75	
		Total					6167032.65	

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Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
5.00		DOORS, WINDOWS AND FITTINGS						
5.01		Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :						
a)		For fixed portion						
i)	21.1.1.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	6917.00	kg	394.90		2731523.30	

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1	1A	2	3	4	5	6	7	8
b)		For shutters of doors, windows & ventilators including providing and fixing hinges/pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately).						
i)	21.1.2.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	4061.00	kg	443.80		1802271.80	
5.02	21.14	Providing and fixing anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868. Minimum anodic coating of grade AC 15) sub frame work for windows and ventilators a with extruded built up standard tubular sections of approved make conforming to IS: 733 and IS : 1285 fixed with dash fastener of required dia and size(Dash fastener to be paid for separately).	1993.00	kg	332.30		662273.90	

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1	1A	2	3	4	5	6	7	8
5.03		Providing and fixing pressed steel door frames conforming to IS: 4351, manufactured from commercial mild steel sheet of 1.60 mm thickness, including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25 mm, or base ties of 1.60 mm, pressed mild steel welded or rigidly fixed together by mechanical means, including M.S. pressed butt hinges 2.5 mm thick with mortar guards, lock strike-plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge:						
a)		Profile C						
i)	10.14.2.	Fixing with adjustable lugs with split end tail to each jamb	11.00	metre	363.10		3994.10	

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1	1A	2	3	4	5	6	7	8
5.04		Providing and fixing 12mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.						
a)	21.2.2	Pre-laminated particle board with decorative lamination on both sides.	63.00	Sqm	969.95		61106.85	
5.05		Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item) :						
a)	21.3.2	With float glass panes of 5.50 mm thickness	491.00	sqm	905.75		444723.25	

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1	1A	2	3	4	5	6	7	8
5.06	21.10	Providing and fixing double glazed hermetically sealed glazing in aluminium windows, ventilators and partition etc. with 6 mm thick clear float glass both side, having 12 mm air gap, including providing EPDM gasket, perforated aluminium spacers, desiccants, sealant (Both primary and secondary sealant) etc. as per specifications, drawings and direction of Engineer-in-charge complete	20.00	sqm	3328.40		66568.00	
5.07		Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer in charge						
a)	21.4.2	With brass cover plate minimum 1.25 mm thickness	72.00	each	2127.30		153165.60	

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1	1A	2	3	4	5	6	7	8
5.08	21.17	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	1762.00	kg	388.40		684360.80	
5.09		Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters :						
a)	9.21.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	416.00	sqm	1578.30		656572.80	

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1	1A	2	3	4	5	6	7	8
5.10	9.23	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of shutters (over all area of door shutter to be measured).	416.00	sqm	325.20		135283.20	
5.11		Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured) :						
a)	9.24.1	Rectangular or square.	205.00	sqm	127.75		26188.75	
5.12	9.12	Extra for providing frosted glass panes 4 mm thick instead of ordinary float glass panes 4 mm thick in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured).	10.00	sqm	5.80		58.00	
5.13		Providing glass panes, with wooden fillets wherever necessary.						
a)	14.6.1	Float glass panes of thickness 4 mm	10.00	Sqm	724.65		7246.50	
5.14	NS	Extra for Providing etching on glass panes in doors, windows shutters, partition etc in desired pattern complete as per drawing and as directed.(Area of etching shall be measered for payment)	20.00	sqm		400.00		8000.00

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1	1A	2	3	4	5	6	7	8
5.15		Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S including cost of adhesive of approved quality						
a)	9.127.2	1.0 mm thick.	824.00	sqm	596.30		491351.20	

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1	1A	2	3	4	5	6	7	8
5.16		Providing and installation of fully insulated wooden fire rated shutter of 120min. fire rating conforming to BS: 476 part 22 and IS:3614 Part II as per the prototype tested and certified by CBRI Roorkee, of minimum 50 mm thickness, comprising of 75mm x 44mm hardwood internal timber frame work, with infill of 96 kg/m ³ , ceramic fiber blankets, coated with VIPER FR or equivalent intumescent coating on both sides for insulation. The coated insulation shall be sandwiched between 12mm thick, Non combustible Boards (Calcium Silicate of approved quality and manufacture) on both sides (edge to edge on internal Hardwood frame) and clad with 3mm thick commercial ply of approved quality & 1mm thick laminate of approved brand and manufacture on both sides, with 50mm x 14mm 2nd class teak wood lipping all round the shutter.						

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1	1A	2	3	4	5	6	7	8
		The shutter is suitable for mounted on the door frame, as per the item given below. Both frame and shutter shall be fitted with fire & smoke intumescent seal of Viper or equivalent make of size 20 x 4mm on all the three sides except bottom. The pasting of the ply/veneer/laminate should be done using automatic machine and should be free from any nails or perforations. The board shall be Resistant to vermin, mould growth, minor impact, abrasion and short term water attack. The shutter shall be fixed with the frame with the help of SS 304 grade ball bearing hinges of size 100x76x2mm with necessary screws and making cut out for vision panel. Provisions/reinforcement for fixing all fixtures shall be built in on the door prior to the supply. The rate shall include all the materials, labour and T&P for the works described in the item above.						
a)	NS	Single/Double Shutter	36.00	sqm		9132		328752.00

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
5.17	NS	Providing and fixing door frames as per BS: 476 part 22, IS:3614 Part II as per the prototype certified by CBRI Roorkee made out of 2nd class Teak Wood (Ivory Coast)frame of section 120 X 70 mm for fire resistant doors of 120 minutes fire rating, with heat activated intumescent fire seal strips of size 20 x 4 mm(for smoke sealing) provided in grooves on all three sides of the frame with one coat of approved brand of fire retardant primer including two coats of fire retardant paint FR 881or equivalent un thinned on cleared hard wood surface of door frames (@3.5 sq.m. per litre per coat) including preperation of base surface as per recommendations of manufacturer to make the surface fire retardant, including fixing the frame with 8 nos. 100 mm long, 10 mm dia metal dash fastners complete as per directions of the Engineer in charge NOTE:- cost of fire seal strips, dash fastners are included in the item. Nothing extra shall be paid if size of any component of material exceeds the limit mentioned in the item.	50.00	Metre		2700		135000.00

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
5.18	NS	Providing and fixing UL listed door Co-ordinator for coordination of double leaf doors, of approved brand and manufacture with minimum one year warrantee.	7.00	Each		11826		82782.00
5.19	NS	Supply & fixing of Fire-stop Fire sealing System Board Type(barriers) of approved make for sealing of floors, wall openings under control panels for the purpose of compartmentation.The FPSS consists of 100mm thick mineral wool insulation pad of approved make having density of 48 kg/m3 coated with FR in tumescent compound encased with 10 mm thick calcium silicate board of approved make, sealed with intumescent Fire Seal Putty SP#711 of approved Make. The system is coated and fixed with openings with the help of slotted angles of size 40x40mm of 16 SWG thickness, nutbolts of size 1.5"x8mm Dia. The FPSS system all provide 2 hours fire rating as per IS 12458-1989.After insulation of this system it will be painted with Fire Retardant Paint of approved Make.	5.00	sqm		15110		75550.00

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
5.20	NS	Providing and fixing 6 mm thick pyroswiss extra or equivalent fire rated clear toughened glass of approved make, of 120 minutes fire rating to be fixed in vision panel including cost of fire ceramic tape and moulding/beading etc all complete	1.00	sqm		45331		45331.00
5.21	9.83	Providing and fixing Aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI:3564, embossed on the body,door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.3	183.00	each	662.80		121292.40	
5.22		Providing and fixing aluminium sliding door bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete:						
a)	9.96.1	300x16 mm	7.00	each	203.80		1426.60	
b)	9.96.2	250x16 mm	7.00	each	168.95		1182.65	
5.23		Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete:						
a)	9.97.2	250x10 mm	294.00	each	86.45		25416.30	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
b)	9.97.4	150x10 mm	829.00	each	59.00		48911.00	
5.24	9.98	Providing and fixing aluminium pull bolt lock anodised ISI marked (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws bolts, nut and washers etc. complete.	10.00	each	62.45		624.50	
5.25	9.99	Providing and fixing 50cm long aluminium kicking plate 100x3.15 mm anodised (anodic coating not less than grade AC 10 as per IS :1868) transparent or dyed to required colour or shade with necessary screws etc. complete.	10.00	each	155.35		1553.50	
5.26		Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete :						
a)	9.100.1	125 mm	585.00	each	62.50		36562.50	
b)	9.100.2	100 mm	30.00	each	49.55		1486.50	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
5.27		Providing and fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws etc. complete.						
a)	9.101.2	Twin rubber stopper	293.00	each	71.55		20964.15	
5.28	9.103	Providing and fixing bright finished brass 100 mm mortice latch and lock ISI marked with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles of approved quality with necessary screws etc. complete.	182.00	each	706.15		128519.30	
5.29		Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete.						
a)	21.11.2	255 X 19 mm	632.00	each	229.80		145233.60	
5.30		Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.						
a)	21.12.2	Powder coated minimum thickness 50 micron aluminium tubular handle bar.	68.00	each	544.40		37019.20	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
5.31	21.13	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	34.00	each	356.10		12107.40	
5.32		Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete.						
a)	21.15.2	Powder coated minimum thickness 50 micron aluminium.	646.00	each	51.70		33398.20	
5.33		Providing and fixing aluminium round shape handle of outer dia 100mm with SS screws etc. complete as per direction of Engineer-in-charge						
a)	21.16.2	Powder coated minimum thickness 50 micron aluminium	68.00	each	66.80		4542.40	
5.34		Providing and fixing of UL listed fire rated single/double leaf panic exit devices tested in accordance with BS EN 1125: 1997 & BS EN 179: 1997, EN 1670 (Corrosion Resistant), & BS 476 Part 22 (for fire rating) with min. one year warrantee.						
a)	NS	Double Leaf	7.00	each		17738		124166.00

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
5.35	NS	Providing and fixing of fire rated heavy duty door closer (Becker F.S. Make BLC-0408 or equivalent) in accordance with BS:476 Part 22 for fire rating) and BS EN 1154 with minimum one year warranty.	7.00	each		2562		17934.00
5.36	NS	Providing and fixing fire rated mortice lock with lever handle tested in accordance with European Standard EN12209 / DIN18251 and 80mm Long cylinder to EN1303 of SCHLAGE (IR) EL2020 K series or approved equivalent manufacturer having 1 year manufacturers warranty.	7.00	each		4336		30352.00
5.37	NS	Providing and fixing 300 mm long stainless steel grade 304 D type back to back pull handle (of Dorset or approved equivalent make) with necessary bolts with alen key arrangement etc complete.	14.00	each		1840		25760.00
5.38		Supplying and fixing rolling shutters of approved make, made of required size M.S. laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and						
	10.6.1	80x1.25mm M.S. laths with 1.25 mm thick top cover.	32.00	Sqm	1840.85		58907.20	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
	10.7	Providing and fixing ball bearing for rolling shutters.	12.00	No.	429.85		5158.20	
	10.9	Extra for providing grilled rolling shutters manufactured out of 8 mm dia. M.S. bar instead of laths as per design approved by Engineer-in-charge.(area of grill to be measured).	16.00	Sqm	261.35		4181.60	
		Total					8615175.25	873627.00

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
6.00		Steel Works						
6.01		Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming cost with approved steel primer all complete.						
a)	9.48.1	Fixed to steel windows by welding.	360.00	kg	90.75		32670.00	
6.02		Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.						
a)	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	1900.00	Kg	77.90		148010.00	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
6.03	10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	3714.00	kg	558.00		2072412.00	
		Total					2253092.00	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
7.00		Flooring						
7.01		Cement concrete flooring 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete.						
a)	11.3.1	40mm thick with 20mm nominal size stone aggregate.	10.00	sqm	280.05		2800.50	
7.02		Cement plaster skirting (up to 30 cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.						
a)	11.6.1	18 mm thick.	1.00	sqm	258.20		258.20	
7.03		Marble stone flooring/skirting with 18mm thick marble stone sample of marble shall be approved by Engineer-in-charge over 20 mm (average) thick base of cement mortar 1:4 (1 cement: 4 coarse sand) laid and jointed with grey cement slurry including rubbing and polishing complete with:						
a)	11.23.2	Raj Nagar Plain	297.00	sqm	1265.35		375808.95	
b)	11.23.5	Udaipur green marble	594.00	sqm	1418.95		842856.30	
c)	NS	Jaisalmer Stone (Base rate Rs 70 per sft)	297.00	sqm		1600.00		475200.00

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
7.04	NS	18mm thick Prepolished Granite (Base Rate 150/- Sqft) in Risers, skirting and dado/wall cladding over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement including pointing with white cement mixed with pigment matching the shade of granite stone all complete and as directed.	465.00	sqm		3883.00		1805595.00
7.05		Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :						
a)	11.26.1	25 mm thick.	2099.00	sqm	945.70		1985024.30	
7.06	11.27	Kota stone slabs 25 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	116.00	sqm	954.10		110675.60	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
7.07	11.36	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	1784.00	sqm	724.25		1292062.00	
7.08	11.40	Providing and laying rectified Glazed Ceramic floor tiles 300x300 mm or more (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc., complete.	414.00	sqm	961.25		397957.50	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
7.09		Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement: 4 coarse sand) including grouting the joints with white cement and matching pigments etc., complete						
a)	11.41.2	Size of Tile 600x600 mm	1094.00	sqm	1337.10		1462787.40	
7.1		Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), including grouting the joint with white cement & matching pigments etc. complete.						
a)	11.46.2	Size of Tile 600x600 mm	110.00	sqm	1339.20		147312.00	

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Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
7.11		Providing and fixing 18mm thick gang saw cut mirror polished premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills. facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edge to give high gloss finish etc. complete at all						
a)		Granite of any colour and shade						
i)	8.2.2.1	Area of slab upto 0.50 sqm	10.00	sqm	3041.15		30411.50	
ii)	8.2.2.2	Area of slab over 0.50 sqm.	63.00	sqm	3083.40		194254.20	
7.12		Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc complete as per design approved by Engineer-in-						
a)	8.3.2	Granite work.	93.00	metre	178.75		16623.75	
7.13	8.4	Extra for fixing marble /granite stone over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive including cleaning etc. complete.	188.00	metre	185.80		34930.40	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
7.14	8.5	Extra for providing opening of required size & shape for wash basins/ kitchen sink in kitchen platform, vanity counters and similar location in marble/Granite/stone work including necessary holes for pillar taps etc. including rubbing and polishing of cut edges etc. complete.	48.00	Nos	281.10		13492.80	
7.15		Chequered terrazo tiles 22 mm thick with graded marble chips of size up to 6 mm in floors jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete on 20 mm thick bed of cement mortar 1:4 (1 cement :4 coarse sand) :						
a)	11.19.2	Medium shade using 50%white cement 50% ordinary cement	556.00	sqm	773.40		430010.40	
7.16		Granite stone flooring with 18 mm thick stone, rectangular shape, (minimum size of stone should be 0.45 sqm and one dimension not less than 700 mm) as per drawing or as per the pattern as approved by the client/ architect/ engineer, over 20 mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry mixed with pigment to match the shade of stone including rubbing and polishing complete.						

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
a)	NS	Granite stone of approved quality (Base rate Rs 150 per Sft)	167.00	Sqm		3870		646290.00
		Total					7337265.80	2927085.00

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
8.00		CEILING & ROOFING						
8.01		Providing and fixing 8mm thick clear multi wall polycarbonate sheets of approved quality and shade in desired shape in roofing including the cost of EPDM gaskets , sealing tape , aluminium profile and all necessary accessories complete as per architectural drawings and as directed by Engineer incharge. The item includes designing the complete system and supplying & getting approved from client and / or reputed engineering institue like IIT etc. The detailed shop drawings including supplying structural design calculations based on relevent codal provisions and carrying out water penetration test as per standards followed in India.						
a)	NS	The whole work is to be done through reputed and approved vendor having experience in polycarbonate work in Commercial/ Govt/ Corporate buildings as per architectural elevation drawings including filling of joints with silicon sealent and also with masonry/ RCC work, at all heights including double heights, straight or curved etc. complete in all respect. (Plan Area shall be measured for the payment) (M.S. Framing to be paid for seprately)	95.00	Sqm		3000.00		285000.00

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
8.02		Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of :						
i)		v) 1st course of applying cement slurry @ 4.4 Kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.						
ii)		vi) 2nd course of 20mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface.						
iii)		vii) 3rd course of applying blown or residual bitumen applied hot at 1.7 Kg. per sqm of area.						
iv)	22.3	viii) 4th course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 Kg/sqm.)	75.00	sqm	399.60		29970.00	

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Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
8.03		Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: a) Applying a slurry coat of neat cement using 2.75 kg/sqm. of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300mm height including cleaning the surface before treatment. b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115mm size with 50% of cement mortar 1:5 (1 cement: 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound to IS : 2645 and approved by Engineer - in - charge to required slope and treating similarly the						

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
		adjoining walls upto 300 mm height including rounding of junctions of walls and slabs c) After two days of proper curing applying a second coat of cement slurry using 2.75kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge. d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement: 4 coarse sand) admixed with water proofing compound conforming to IS: 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3mm deep. e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge :						
a)	22.7.1	With average thickness of 120mm and minimum thickness at khurra as 65 mm.	1476.00	sqm	786.70		1161169.20	
		Total					1191139.20	285000.00

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Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
9.00		Finishing						
9.01		12 mm cement plaster of mix:						
a)	13.1.2	1:6 (1 cement: 6 fine sand)	6134.00	sqm	112.50		690075.00	
9.02		15 mm cement plaster on the rough side of single or half brick wall of mix:						
a)	13.2.2	1:6 (1 cement: 6 fine sand)	7486.00	sqm	130.20		974677.20	
9.03	13.11	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) finished with a top layer 6mm thick cement plaster 1:6 (1 cement: 6 fine sand).	3398.00	sqm	182.90		621494.20	
9.04		6 mm cement plaster of mix:						
a)	13.16.1	1:3 (1 cement: 3 fine sand)	4921.00	sqm	101.00		497021.00	
9.05	13.22	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	2118.00	sqm	28.85		61104.30	
9.06		Distemping with oil bound washable distemper of approved brand and manufacture to give an even shade						
a)	13.41.1	New work (two or more coats) over and including priming coat with cement primer.	535.00	sqm	64.65		34587.75	

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
9.07		Finishing walls with Acrylic Smooth exterior paint of required shade:						
a)	13.46.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including base coat of water proofing cement paint applied @ 2.20 kg/10 sqm).	321.00	sqm	67.50		21667.50	
9.08		Applying one coat of cement primer of approved brand and manufacture on wall surface:						
a)	13.43.1	Cement primer.	18326.00	sqm	25.55		468229.30	
9.09		Finishing walls with textured exterior paint of required shade:						
a)	13.45.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including base coat of water proofing cement paint applied @ 2.20kg/10 sqm.	3156.00	sqm	117.70		371461.20	
9.10		Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade						
a)	13.60	Two or more coats on new work	18326.00	sqm	60.25		1104141.50	
9.11		Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:						

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
a)	13.62.1	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture.	411.00	sqm	78.80		32386.80	
9.12	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	18326.00	sqm	76.05		1393692.30	
9.13		Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.						
a)	13.81.2	Two coats	7331.00	sqm	34.40		252186.40	
9.14		Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.						
a)	13.83.2	Two coats	10496.00	sqm	61.45		644979.20	

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
9.15		Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.						
a)	13.85.3	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	17827.00	sqm	25.55		455479.85	
9.16	NS	Providing and fixing 24 gauge and 18mm mesh size chicken wiremesh at junction of concrete and brick work and other locations at all heights including cutting to required size and side laps of minimum 75mm and fixing in positions with nails/screws etc. as directed and as required at site.	200.00	sqm		75.00		15000.00
9.17		Applying chemical resistant epoxy resin wall coating over plastered surface including preparing of the surface, applying acrylic primer, putty and painting of approved brand and manufacture.						
a)	NS	New work (three or more coats) over and including priming coat with acrylic primer and putty.	500.00	sqm		500.00		250000.00
		Total					7623183.50	265000.00

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
10.00		Miscellaneous						
10.01		Stone work (machine cut edges Veneer work) for wall lining upto 10 m height, backing filled with a grout of 12 mm thick cement mortar 1:3 (1 Cement : 3 coarse sand) and jointed with Cement mortar 1:2 (1 cement : 2 stone dust), including rubbing and polishing complete.(To be secured to the backing and the sides by means of cramps and pins which shall be paid for separately).						
a)	NS	Gwalior Sand Stone	577.00	sqm		2000.00		1154000.00

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
10.02		Designing, supplying, fabrication and installation of semi unitised Structural glazing system in the form of fixed panels, using specially designed aluminium extruded sections, mullions and transoms having 25 micron Anodising of approved colour and shade and make with mullions fixed on the RCC beams/columns through adequately designed brackets including providing masking tape on the profiles for safety against external scratches on site complete with approved silicon sealant EPDM gasket etc. to make the structural glazing air tight and water tight as per standards and as per Architect's drawings and specifications. The design to be as per BIS code for required wind pressure IS: 875 part III and use of aluminium section alloy as per IS:8147.						

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
	NS	System design to strictly consider for thermal movements, air infiltration, water penetration, seismic movement and structural movement. Contractor to furnish shop drawings along with sequence of work for approval of Engineer-in-charge. The minimum section shall be 131x66x2mm and per sqmt weight shall be 10kg approx., the item shall be measured and paid for actual surface area of structural glazing/aluminium composite panel supported on the frame. The work shall be carried out by the specialised agency approved by Engineer in Charge.	134.00	sqm		5800		777200.00

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
10.03	NS	Extra for providing & fixing 24mm made up thickness insulated glass over above corresponding item hermetically sealed with 6mm heat strengthend toughened solar control off line coated high performance temperable glass of approved colour having reflective soft coating and 6mm clear toughned float glass inside with 12mm dry air cavity between two glass panes separated by a hollow aluminium spacer bar with twin lines of micro holes as approved filled with molecular desiccant of approved make and using primary hot meld duly and secondary polysulphide or silicon sealant of approved make all complete over above item. (U value less than 2.85w/sqm k, shadding cofficent less than 0.55, solar factor less than 0.25, light transmission minimum 25%)	134.00	Sqm		4700		629800.00

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
10.04	7.42	Providing and fixing adjustable stainless steel cramps of approved quality, required shape and size, adjustable with stainless steel nuts, bolts and washer (total weight not less than 260 gms), for dry stone cladding fixed on frame work at suitable location, including making necessary recesses in stone slab, drilling required holes etc complete as per direction of the Engineer-in-charge.	1154.00	each	171.20		197564.80	
10.05	4.17	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth.	176.00	sqm	338.75		59620.00	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
10.06		Providing and laying integral cement based treatment for water proofing on horizontal surface at all depth below ground level for under ground structures as directed by Engineer-in-Charge and consisting of : i) 1st layer of 22mm to 25mm thick approved and specified rough stone slab over a 25mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound conforming to IS:2645 in the recommended proportion over the leveling course (leveling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound. ii) 2nd layer of 25mm thick cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound in recommended proportions. iii) Finishing top with stone aggregate of 10mm to 12mm nominal size spreading @ 8 cudm/sqm thoroughly embedded in the 2nd layer.						
a)	22.1.1	Using rough kota stone.	415.00	Sqm	732.85		304132.75	

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
10.07		Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 22 mm to 25mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement : 3 coarse sand) 20mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge :						
a)	22.2.1	Using rough Kota stone	212.00	Sqm	884.90		187598.80	
10.08		Providing fabricating and fixing of signages of varying sizes and shapes using three mm thick PVC sheet at base with self adhesive coloured vinyl with graphicson top of glow tape complete including fixing on wall with screws and washers or hanging on ceiling with GI chain/GI Bar complete as per technical specifications and directions of Engineer.						
	NS		5000.00	Sqinch		4.00		20000.00

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
10.09		Providing and fixing of sinages of varying sizes and shapes using stainless steel sheet of minimum 16G thickness brush finish including engraving/etching of letters of required size filled with colour as desired by engineer,fixing with ss screws on walls						
	NS		5000.00	Sqinch		17.00		85000.00
10.1		Providing. Fabricating and fixing of Aluminium Composite Panel Signages with 3mm thick ACP Sheet, using 25X25 mm MS pipe Frame of approved quality with anti rust coating, back with G.I. and 5 Sides with ACP Sheet (alucobond or equivalent approved make), lettering to be done with 5mm Acrylic Sheet and Vinyl's(if Needed), backlit with (Philips or approved equivalent) Slim Lite Tube light Fittings, Acrylic Letters to Protrude out and be lit, together with a timer for switching on and off automatically at night and day including transportation and fixing at site as per the direction of the site engineer.						
	NS		500.00	Sft		1050.00		525000.00

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
10.11	NS	Providing & Fixing Wall Mounted Nonlit Internal sign of approved make & made of 10mm Acrylic with the required text matters stuck on it with plotted self adhesive vinyl & Mounted on 3mm Aluminium Composit Panel bracketed at suitable locations including necessary fittings & fastening etc. complete & as directed by The Engineer in charge.	1000.00	sqrinch		9.00		9000.00
10.12	NS	Providing and fixing of external sinages of varying sizes and shapes using GI sheet of atleast 22 G / aluminium sheet of suitable gauge complete as per technical specifications and directions of Engineer.	500.00	sqft		350.00		175000.00
10.13	NS	Providing and fixing MS support frame for external signages made of structural steel including welding, primering, painting foundation with 1:1.5:3 cement concrete complete as per drawing, technical specifications and directions of engineer.	1500.00	Kg		135.00		202500.00

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
10.14	NS	Providing,fabricating and fixing digitally printed translites(Technova) with multicolour design on roland /HP printers mounted on acrylic sheet 3mm further mounted on 22 gauge powder coated GI box with phylips /surya tubes inside including installtion on wall electric fittings etc on walls or otherwise complete .	100.00	sq ft		550.00		55000.00
10.15	NS	Providing fabricating installation and fixing of backlit flex signages on Hanwa/star 18 ounce flex signages printed on high resolution printer mounted on MS sheet on framed MS structure further fixed on 24 gauge MS /GI box with phylips/surya fittings inside including tranformers etc, electri wiring etc complete.	100.00	sqft		520.00		52000.00
10.16	NS	Providing,fabricating installation and fixing of glass finish SS letters made of 20 gauge SS 304 sheet of required size and shape with neatly fabricated joints properly welded and grinded with all corners rubbed and polished with arrangement of screws in the letter itself for mounting on the walls including cost of screws and fixing complete as per directions of Engineer.	100.00	sqinch of each letter		24.00		2400.00

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
10.17	NS	Providing fabricating and fixing of retroreflective vinyle sinages of varying sizes and shapes pasted on aluminium/GI sheet of 18 gauge with provision of fixing on MS structure complete as per technical specifications and directions of Engineer.	100.00	sqinch		6.45		645.00
10.18	NS	Providing fabricating installation and fixing of night vision sinages visible in complete darkness computer cut vinyle pasted on 3mm acrylic sheet and further fixed on wall/hanging from ceiling with the help of MS/GI rods complete as per technical specifications and directions of engineer.	100.00	sq inch		6.00		600.00
10.19	NS	Providing. fabricating and fixing of ACP aluminum composite plastic signs with 3 mm ACP sheet, using 1" ms pipe frame, with anti rust coating, back with G.I. and 5 sides with ACP sheet, lettering to be done with 5mm acrylic sheet and vinyls if needed backlit with Philips slim lite tube light fittings, acrylic letters to protrude out and be lit, together with a timer for switching on and off at required timings, including transportation and fixing at site as per the direction of the site engineer	100.00	sq.ft.		125.00		12500.00

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
10.20		Providing the following brand new vehicle at any time for exclusive use of engineer during currency of contract.The number of vehicles and period shall be informed by the engineer as per requirement.The rate are inclusive of service of drivers, fuel, oil,						
a)	NS	Indica or equivalent as required	24000.00	Km		10.00		240000.00
		Total					748916.35	3940645.00

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
11.00		ROAD WORK AND DEVELOPEMENT						
11.01	16.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm. depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth lead upto 50 metres.	500.00	SQM	61.25		30625.00	
11.02	16.75	Providing and laying C.C. pavement of mix M25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator, vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in-charge. (The panel shuttering work shall be paid for separately).	20.00	Cum	5761.60		115232.00	
11.03		Providing and laying in position bitumen hot sealing compound for expansion joints etc						

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
a)	16.46.1	Using grade 'A' sealing compound.	6000.00	Per cm depth per cm width per m length	1.65		9900.00	
11.04	16.68	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction and of approved size and design/ shape laid in required colour and pattern over and including 50mm thick compacted bed of fine sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	300.00	sqm	536.65		160995.00	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
11.05	16.80	Construction of dry lean cement concrete sub base over a prepared sub-grade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer-in- charge.	30.00	cum	2899.25		86977.50	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
11.06	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement: 3 coarse sand) including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm) including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	14.00	Cum	5046.80		70655.20	
s								
11.07	23.1	Trenching in ordinary soil upto a depth of 60cm including removal and stacking of serviceable materials and then disposing of by spreading and neatly levelling with in a lead of 50m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or/and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	300.00	Cum	30.90		9270.00	

Project Name: Construction of 100 Bed MCH wing of District Female Hospital at Shahjahanpur, Uttar Pradesh under National Rural Health Mission Scheme.

BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
11.08	23.3	Supplying and stacking of well decayed cow dung manure at site including royalty and carriage upto 1 km (Cow dung manure measured in stacks will reduced by 8% for Payment).	100.00	Cum	215.15		21515.00	
11.09	23.5 + 23.6	Rough dressing the trenched ground including breaking clods & Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	1000.00	Sqm	2.54		2540.00	
11.10	23.8	Spreading of sludge, dump manure or/and good earth in required thickness as per direction of office-in charge (Cost of sludge, dump manure or/ and good earth to be paid separately).	100.00	Cum	21.00		2100.00	
11.11	23.7	Fine dressing of the ground	1000.00	Sqm	1.46		1460.00	
11.12		Grassing with selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the good earth shall be paid for separately).						
a)	23.10.2	With grass Turf	1000.00	Sqm.	5.28		5280.00	

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BOQ for Civil Work								
Item No	Ref. No.	Description Of Item	Total Qty	Unit	DSR 12 Rate	NS Item Rate	Amount DSR	Amount NS Items
1	1A	2	3	4	5	6	7	8
11.13		Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately):						
a)	23.14.1	Holes 1.2 m dia and 1.2 m deep.	10.00	Each	186.90		1869.00	
b)	23.14.2	Holes 60 cm dia, and 60 cm deep.	10.00	Each	24.70		247.00	
		Sub Total					518665.70	

ABSTRACT

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P.
under NRHM

S.No.	DESCRIPTION	DSR-2012 Amount (Rs)	Market Amount(Rs)
A	PLUMBING WORK		
1.00	SANITARY FIXTURES	515,628.50	566,435.00
2.00	SOIL, WASTE AND VENT PIPES	1,765,441.40	477,284.00
3.00	WATER SUPPLY	714,278.50	1,514,228.30
4.00	SEWERAGE AND DRAINAGE	410,118.48	475,000.00
5.00	EARTH WORK	41,623.20	
6.00	EXTERNAL WATER SUPPLY	313,522.57	185,000.00
7.00	RAIN WATER PIPING	388,574.70	290,990.20
8.00	BOREWELL	0.00	751,458.00
9.00	RAIN WATER HARVESTING	0.00	305,200.90
10.00	SOLAR WATER HEATING SYSTEM	83,608.65	476,080.40
11.00	WATER TREATMENT PLANT,PUMPS & EQUIPMENT		150,000.00
12.00	WATER SUPPLY PUMP PANEL		219,936.00
	TOTAL	4,232,795.99	5,411,612.80

Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
1.00	SANITARY FIXTURES						
1.01	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 white P.V.C. 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 :						
a)	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	each	4.00	2,964.10	11,856.40		
1.02	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :						
a)	W.C. pan with ISI marked black solid plastic seat and lid	each	55.00	4,201.05	231,057.75		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
1.03	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require :						
a)	White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap	each	60.00	1,460.50	87,630.00		
b)	White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P. brass pillar taps with elbow operated levers ISI marked	each	10.00	2,500.05	25,000.50		
1.04	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS : 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :						
a)	Kitchen sink with drain board						
a i)	510x1040 mm bowl depth 250 mm	each	1.00	6,743.55	6,743.55		
b)	Kitchen sink without drain board						
b i)	610x510 mm bowl depth 200 mm	each	1.00	3,934.30	3,934.30		
1.05	Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required :						
a)	Size 600x450x200 mm	each	15.00	2,758.65	41,379.75		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
1.06	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :						
a)	Rectangular shape 453x357 mm	each	48.00	598.30	28,718.40		
b)	Providing and fixing full size branded mirrors of 5mm thick float glass (of approved quality) complete with 6mm thick ply backing fixed to wall over suitable hardwood base frame complete with 32mmx19mm decorative teakwood moulding all around duly polished as per drawings and as directed.	sq.m.	2.00			5,000.00	10,000.00
1.07	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	each	6.00	341.25	2,047.50		
1.08	Providing and fixing toilet paper holder :						
a)	Vitreous china	each	55.00	259.75	14,286.25		
1.09	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	each	48.00	180.10	8,644.80		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
1.10	Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/6 litre (adjustable to 4 litre/8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.	each	1.00	9,444.35	9,444.35		
1.11	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	each	3.00	14,961.65	44,884.95		
1.12	Providing and fixing water Jet Nozzle with hose pipe and half turn CP brass angle valve to be fitted with seat cover of european water closet complete in all respect of approved quality	Each	55.00			1,369.00	75,295.00
1.13	Providing and fixing soap tray with CP brass lid and brackets fixed to wooden cleats with CP brass screws.(Jaquar model no.1131 or equivalent model of other approved make).	Each	20.00			508.00	10,160.00
1.14	Providing and fixing CP brass towel rail size of 600x20 mm of approved make complete with CP brackets fixed to wooden cleats with CP brass screws(Jaquar model no.1111 or equivalent model of other approved make)	Each	48.00			990.00	47,520.00

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
1.15	Providing and fixing brass coat hook of approved quality and make complete with material of fixing	Each	40.00			300.00	12,000.00
1.16	Extra for providing and fixing white vitreous china oval shape wash basin in place of normal wash basin with CI/MS brackets painted white, 15 mm CP brass pillar taps, 32 mm CP brass waste of standard pattern, including painting of fittings and brackets cutting and making good the walls wherever required						
a)	Counter top oval shape wash basin size 550x470 mm with centre tap hole, single 15 mm CP brass swan neck type pillar tap	Each	42.00			1,332.00	55,944.00
1.17	Providing and fixing stainless steel grab bar 25mm dia of required length minimum 750 mm with PVC cleats, C.P. brass screws etc. complete.	Each	12.00			668.00	8,016.00
1.18	Providing and fixing vitreous china division plate of size 960x165x325 mm of approved make and design including brass cleats,C.P. brass screws all fittings etc. complete in all respect	Each	3.00			2,500.00	7,500.00
1.19	Providing and fixing Hospital white vitreous china bed pan sink with P trap, size 600 x 450 mm with 10 litres C.I. High level flushing cistern flush pipe, C.I./M.S. bracket painting with 3 coats of white paint complete with accessories, C.P. brass fittings with vertical jet horizontal spray complete with control cocks.	Each	5.00			18000.0	90000.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
1.20	Supply , installation, testing and commissioning of compact floor mounted pedestal base surgical scrub sink tailor made to suit the site available compatiable with all the regular and standard plumbing system, with inbuilt geyser designed for use in operation theatre fabricated from 16 gauge 304 type stainless steel seamless welded,polished to satain finish including connecting to drainage and water points and making good cutting of walls and floor surface all complete and as directed						
a)	Tailor made surgical scrub sink (2 bay) Approximate size 1.4 mX0.54mX0.84m with 1 user elbow operated mixture tap, soap dispensers, drain outlet ,thermostatic control of water temperature	Each	1.00			250000.0	250000.0
SubTotal(Sanitary Fixtures)						515,628.50	566,435.00

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
2.00	SOIL, WASTE AND VENT PIPES						
2.01	Providing and fixing soil, waste and vent pipes.						
a)	100 mm dia.						
i)	Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	Metre	1,420.00	857.30	1,217,366.00		
b)	150 mm dia						
	Centrifugally cast (spun) iron socketed pipe as per IS:3989	Metre	10.00			2,100.00	21,000.00
2.02	Providing and fixing M.S holder-bat clamps of approved design to Sand Cast iron/ cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls etc.						
a)	for 100 mm dia. pipe	Each	144.00	112.50	16,200.00		
2.03	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.						
a)	100 mm						
a i)	Sand cast iron S&S as per IS-3989	Each	60.00	353.25	21,195.00		
2.04	Providing and fixing plain bend of required degree.						
a)	100 mm						
a i)	Sand cast iron S&S as per IS:3989	Each	105.00	296.35	31,116.75		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
2.05	Providing and fixing heel rest sanitary bend.						
a)	100 mm dia						
a.i)	sand cast iron S&S as per IS-3989	Each	20.00	342.80	6,856.00		
2.06	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete.						
a)	100x100x100mm						
a.i)	sand cast iron S&S as per IS-3989	Each	70.00	579.75	40,582.50		
2.07	Providing and fixing single equal plain junction of required degree						
a)	100x100x100mm						
a.i)	sand cast iron S&S as per IS-3989	Each	40.00	522.85	20,914.00		
2.08	Providing and fixing door piece, insertion rubber washer 3mm thick, bolts and nuts complete						
a)	100 mm						
a.ii)	sand cast iron S&S as per IS-3989	Each	50.00	469.40	23,470.00		
2.09	Providing and fixing terminal guard.						
a)	100 mm	Each	20.00	244.10	4,882.00		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
a.i)	sand cast iron S&S as per IS-3989						
2.10	Providing and fixing collar						
a)	100 mm						
a.i)	Sand cast iron S&S as per IS-3989	Each	126.00	238.25	30,019.50		
2.11	Providing lead caulked joints to sand cast iron /centrifugally cast (spun) iron pipes and fittings of diameter:						
a)	100 mm	Each	1,060.00	207.85	220,321.00		
2.12	Providing Drip seal joint of approved make for the sand cast iron/centrifugally cast iron pipes where the workability of lead joint can be effected due to space constraints.						
a)	100 mm	Each	460.00			85.00	39,100.00
b)	150 mm	Each	4.00			213.75	855.00
2.13	Providing and fixing M.S. stays and clamps for sand cast iron / centrifugally cast (spun) iron pipes of diameter :						
a)	100 mm	Each	20.00	61.70	1,234.00		
2.14	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors:						
a)	100 mm inlet and 100 mm outlet (P trap with 50 mm water seal)						
a i)	Sand cast iron S&S as per IS-3989	Each	89.00	801.70	71,351.30		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
2.15	Cutting chases in brick masonry walls for following diameter sand cast iron/centrifugally cast (spun) iron pipes and making good the same with cement concrete 1:3:6 (1 cement:3 coarse sand:6 graded stone aggregate 12.5 mm nominal size) including necessary plaster and pointing in cement mortar 1:4 (1 cement: 4 coarse sand):						
a)	100 mm diameter pipe	Metre	100.00	252.10	25,210.00		
2.16	Painting sand cast iron / centrifugally cast (spun) iron soil, waste vent pipes and fittings with two coats of synthetic enamel paint off any colour such as chocolate, grey, or buff etc. over a coat of primer (of approved quality) for new work:						
a)	100 mm diameter pipe	Metre	1,075.00	28.75	30,906.25		
2.17	Providing and fixing floor drain points formed out of 65 mm dia GI elbow, including with 75mm dia Stainless Steel grating with frame, embedded in floor, all complete as directed.	Each	34.00			300.00	10,200.00
2.18	Providing and fixing C.P. brass bottle trap for wash basin including CP waste fittings complete 32 mm dia complete in all respect of approved quality.	Each	48.00			739.00	35,472.00
2.19	Providing and fixing C.P. brass bottle trap for sinks & urinal basin including CP waste fittings complete 40 mm dia complete in all respect of approved quality.	Each	12.00			744.00	8,928.00

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
2.20	Providing and laying cement concrete 1:2:4 (1 cement:2 coarse sand:4 graded stone aggregate 20 mm nominal size) 80 mm thick all-round the SCI/centrifugally S&S pipe diameter.						
a)	100 mm dia	Metre	410.00			295.90	121,319.00
2.21	Providing and fixing dash fastner made of rust proof plated steel for holding the soil/waste supply pipes complete in all respect						
a)	Dash fastner for pipe more than 25 mm dia to 150 mm dia pipe of required size but not less than size 10 mm dia and 50 mm long minimum & shall be capable of taking 6 tonnes load and also include the supporting threaded rod of 8 mm dia and length 450 mm,the support MS structure angles etc. will be paid as per weight separately/approved steel structures support as per drawing.	Each	10.00			200.00	2,000.00
2.22	Providing and fixing floor clean out plug consist of CI bend & GI socket heavy class with Brass cap & key for opening male threaded cap etc. including lead caulked to CI pipescomplete in all respects as per drawing/ sample approved by Engineer -in - ChargeFCO (floor clean out plug shall be flushed with floor finish						
	100 mm dia/150 mm dia	Each	15.00			1,800.00	27,000.00

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
2.23	Providing and fixing clean out plug consist of GI socket/nipple heavy class with threaded pludge for opening male threaded cap etc. including lead caulked to CI pipescomplete in all respects as per drawing/ sample approved by Engineer -in -Charge						
	100 mm dia/150 mm dia	Each	10.00			1,500.00	15,000.00
2.24	Providing and fixing G.I EXTENSION PIECE for 100 mm dia floor trap formed out of main pipe(Type A) with multiple side inlets, suitable for various dia pipes, side connections, including all fixtures and fittings as per site conditions and as per standard details and water tight sealing of joints and area surrounding the grating and as directed.	Each	90.00			574.00	51,660.00
2.25	Providing and fixing cPVC. pipes complete with cPVC fittings including painting,jointing,testing the cost of cutting the chases and making good the same for waste water disposal complete as per direction of engineer incharge.						
a)	32 mm dia nominal bore (Wash basin to floor trap/floor drain)	Metre	50.00			390.00	19,500.00
b)	40 mm dia nominal bore (Sink,Urinal to floor trap)	Metre	15.00			450.00	6,750.00
c)	50 mm dia nominal bore (Floor Drain to Floor Trap)	Metre	55.00			560.00	30,800.00
2.26	Providing & fixing SS floor trap grating 143x143x5mm thick screwable with SS fixed frame of 150x150 mm size as per approved make & model	each	90.00			780.00	70,200.00
2.27	Steel work welded in built up sections/framed work including cutting,hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
a)	In gratings,frames,guard bar,ladder,railings,brackets,gates and similar works .	kg	49.00	77.90	3,817.10		
2.28	Providing and fixing WC connector socket(for vitreous china & CI pipe) of EDPM good quality with polypropelene body 100x150/100x250 of approved quality and make complete in all respect.	Each	50.00			350.0	17,500.00
SUB TOTAL(SOIL, WASTE AND VENT PIPES)					1,765,441.40		477,284.00

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
3.00	WATER SUPPLY						
3.01	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 as per direction of Engineer in Charge.						
	Internal work – Exposed on wall						
a)	15 mm nominal outer dia pipes	Metre	10.00	133.95	1,339.50		
b)	20 mm nominal outer dia pipes	Metre	35.00	157.15	5,500.25		
c)	25 mm nominal outer dia pipes	Metre	100.00	197.90	19,790.00		
d)	32 mm nominal outer dia pipes	Metre	100.00	252.65	25,265.00		
e)	40 mm nominal outer dia pipes	Metre	85.00	348.25	29,601.25		
f)	50 mm nominal outer dia pipes	Metre	90.00	514.35	46,291.50		
g)	62.5 mm nominal outer dia pipes	Metre	85.00			1,230.00	104,550.00
h)	80 mm nominal outer dia pipes	Metre	50.00			1,550.00	77,500.00
3.02	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
	Concealed work, including cutting chases and making good the walls etc.						
a)	15 mm nominal outer dia pipes	Metre	250.00	219.55	54,887.50		
b)	20 mm nominal outer dia pipes	Metre	220.00	243.95	53,669.00		
c)	25 mm nominal outer dia pipes	Metre	100.00	298.85	29,885.00		
d)	32 mm nominal outer dia pipes	Metre	50.00	359.80	17,990.00		
e)	40 mm nominal outer dia pipes	Metre	10.00			405.00	4,050.00
3.03	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings. This includes jointing of pipes and fittings with one step CPVC solvent cement,trenching,refilling and testing of joints complete as per direction of Engineer in Charge.						
	External Work						
a)	50 mm nominal outer dia pipes	Metre	10.00	475.70	4,757.00		
b)	62.5 mm nominal inner dia pipes	Metre	10.00	1,326.35	13,263.50		
3.04	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :						
a)	50 to 80 mm nominal bore	Each	1.00	630.15	630.15		
3.05	providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end)						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
a)	25 mm nominal bore	Each	10.00	372.95	3,729.50		
b)	32 mm nominal bore	Each	12.00	450.90	5,410.80		
c)	40 mm nominal bore	Each	15.00	546.05	8,190.75		
d)	50 mm nominal bore	Each	11.00	780.60	8,586.60		
e)	65 mm nominal bore	Each	7.00	1,073.25	7,512.75		
f)	80 mm nominal bore	Each	4.00	1,832.95	7,331.80		
3.06	Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main						
a)	50 mm nominal bore	Each	1.00			600.00	600.00
3.07	Providing and fixing unplasticised PVC connection pipe with brass unions:						
a)	45 cm length						
a i)	15 mm nominal bore	Each	152.00	61.70	9,378.40		
3.08	Constructing masonry chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement: 4 coarse sand) for stop cock, with C.I. surface box 100x100x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement: 2 coarse sand:4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement:5 fine sand: 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement :3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design						
a)	With F.P.s bricks	Each	4.00	884.70	3,538.80		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
3.09	Constructing masonry chamber 60x60x75 cm, inside in brick work in cement mortar 1:4 (1 cement: 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement: 2 coarse sand:4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement:5 fine sand: 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement :3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design						
a)	With F.P.s bricks	each	2.00	5,251.80	10,503.60		
3.10	Painting CPVC/G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work						
a)	15 mm nominal outer dia pipes	Metre	10.00	7.35	73.50		
b)	20 mm nominal outer dia pipes	Metre	35.00	8.65	302.75		
c)	25 mm nominal outer dia pipes	Metre	100.00	11.40	1,140.00		
d)	32 mm nominal outer dia pipes	Metre	100.00	13.45	1,345.00		
e)	40 mm nominal outer dia pipes	Metre	85.00	16.00	1,360.00		
f)	50 mm nominal outer dia pipes	Metre	90.00	18.80	1,692.00		
g)	65 mm nominal outer dia pipes	Metre	85.00			22.00	1,870.00
h)	80 mm nominal outer dia pipes	Metre	50.00			25.00	1,250.00
3.11	Painting G.I. /CPVC pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality.						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
a)	50 mm diameter pipe	Metre	10.00	10.55	105.50		
b)	65 mm diameter pipe	Metre	10.00	12.95	129.50		
3.12	Providing and filling sand of grading zone V or coarser grade all-round the G.I./CPVC pipes in external work						
a)	50 mm diameter pipe	Metre	10.00	61.40	614.00		
b)	65 mm diameter pipe	Metre	10.00	96.95	969.50		
3.13	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.						
	Treated water Tank and Untreated water tank	per litre	30,000.00	6.10	183,000.00		
3.14	Providing and fixing C.P brass bib cock of approved quality confirming to IS:8931.						
a)	15 mm nominal bore	Each	50.00	397.50	19,875.00		
3.15	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.						
a)	15 mm nominal bore	Each	50.00	411.40	20,570.00		
3.16	Providing and fixing C.P. brass angle valve for basin mixer and geyser/cisterns points of approved quality conforming to IS:8931.						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
a)	15 mm nominal bore	Each	160.00	449.35	71,896.00		
3.17	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to 18:8931.						
a)	15mm nominal bore.	Each	40.00	426.55	17,062.00		
3.18	Providing and fixing enclosed type water meter (bulk type) conforming to IS : 2373 and tested by municipal board complete with bolts,nuts rubber, insertions etc. (the tail plases if required will be paid seperatly)						
a)	80mm dia nominal bore	Each	1.00	2,880.60	2,880.60		
3.19	Providing and fixing PTMT ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./H.P.H.D. plastic ball.						
a)	40 mm nominal bore, 206 mm long weighin not less than 690 gms	Each	4.00	961.75	3,847.00		
b)	50 mm nominal bore, 242 mm long weighin not less than 1240 gms	Each	4.00	1,391.50	5,566.00		
3.20	Cutting holes upto 30x30 cm in walls including making good the same						
a)	with common burnt clay F.P.S.(non modular) bricks	Each	50.00	152.00	7,600.00		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
3.21	Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement:2 coarse sand: 4 graded stone aggregate 20 mm nominal size) including finishing complete so as to make it leak proof	Each	50.00	143.95	7,197.50		
3.22	Extra for providing wash basin mixer pillar tap in place of normal pillar tap	Each	42.00			1,021.00	42,882.00
3.23	Providing & fixing full way lever operated forged brass ball valve of brass body with forged brass hard chrome plated steel ball tested to a pressure not less than 10 Kg / sqcm with threaded / flanged joints complete with nuts, bolts, gaskets, washers etc.						
a)	15 mm diameter	Each	2.00			240.00	480.00
b)	20 mm diameter	Each	8.00			332.00	2,656.00
3.24	Providing and fixing mosquito proof coupling of approved Municipal design for scour and vent pipes for RCC overhead tanks complete in all respects						
a)	20 mm diameter	Each	2.00			44.80	89.60
b)	25 mm diameter	Each	5.00			50.00	250.00
c)	32 mm diameter	Each	5.00			55.00	275.00
d)	40 mm diameter	Each	5.00			60.20	301.00
3.25	Providing & fixing 9 mm thick thermal insulation tubing of elastomeric flexible material on hot water supply/return pipes having hermetic blistered closed cell structure of expanded synthetic rubber over pipes/ fitting as per manufacturer's specifications etc.complete.						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
a	15 mm to 25 mm diameter	Meter	100.00			120.00	12,000.00
b)	32 mm to 50 mm diameter	Meter	50.00			280.00	14,000.00
3.26	Providing and fixing C.P. brass Overhead (Rain Fall) shower (100mm) with arm and wall flange complete including cutting and making good the walls wherever required.	Each	20.00			1,383.00	27,660.00
3.27	Providing and fixing C.P. brass lab sink pillar tap with long elbow operating lever handle of approved model and make complete in all respect (Aqua bath, Jaquar, Marc)	Each	11.00			2,525.50	27,780.50
3.28	Providing & fixing solid state fully hygienic no touch hand drier of approved make rated for continuous repeat usage with solid state time delay LSF protection, with independent ambient light level & seasonal control temperatures including providing necessary C.I./M.S. brackets painted with two or three coats of enamel paint of approved shade over a coat of primer, wiring cables from drier to plug, plug tops etc. complete including cutting and making good the walls wherever required.	Each	12.00			16,065.00	192,780.00
3.29	Supplying, fixing, testing and commissioning of storage type water heater (Geyser) etc. with Stainless steel body , copper container , automatic thermostatic control electric element, pressure release valve, M.S. nuts and bolts etc. conforming to IS: 2082						
a	35 Litre Capacity	Each	10.00			9,790.00	97,900.00
b)	25 Litre Capacity	Each	6.00			8,550.00	51,300.00

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
3.30	Providing & fixing water storage cooler of approved make and brand with SS body having minimum flow rate of 40 ltrs. Per hour and storage capacity 80 ltrs. Complete in respects.(VOLTAS/ BLUE-STAR/ USHA SHRIRAM)	Each	7.00			39,150.60	274,054.20
3.31	Providing and fixing approved make & suitable model of R.O. plant (fully automatic operation)100ltrs. Per hour flow rate having capacity to treat the raw water and average recovery not less than 35% . The operating voltage to 230 volt AC +/- 10% alongwith required capacity on line SS pump of approved make (3HP minimum) and solenoid valves, dry run protection of pump, automatic tank level control, inbuilt auto flush timer for periodic flushing of membranes, storage tank (3.0 mm (minimum) thick S.S. 304 sheet) 1500 lts of suitable size and its supporting structure, over voltage and over current protection with switch mode power supply system complete in all respects including installation and fittings with the following provisions: (IONIEXCHANGE/ KENT/AQUAPROCESS,Pantair)						
a)	10 micron polypropylene sediment pre filter						
b)	10 micron bacteriostatic activated carbon block on line micron filter with 5 micron rating						
c)	Required Nos. and size of reverse osmosis memberane with 0.0001 micron pore size energy saving poly amide type						
d)	UV lamp of minimum capacity 100LPH and minimum lamp wattage 15W						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
e)	MS powder coated frame efficient of TDS removal more than 90%. Antiscalant dosing and acid dosing system for self flushing/cleaning.Pressure switches and gauges, pH correction dosing system, Digital TDS meter, Digital pH meter, electric panel and necessary instrumentation included Rotameter.MS structure and fibre glass sheet weather protection cover as per site condition.	Each	4.00			100,000.00	400,000.00
3.32	Supplying, installing, testing and commissioning vertical on line multi stage centrifugal pumping set with mechanical seal, C.I. volute and SS impeller & SS shaft connected to a TEFC induction motor of suitable HP for 415 volts, 3 phase, 50 cycles A.C. supply with 150 mm dia pressure gauge with SS/gunmetal isolation cock, vibration eliminating pads, base plate wiring upto panel and equipment for water level controller to start and stop the pump automatically at predecided levels of the water in the tank with provision of protection for dry run etc. complete in all respect (The shop drawing or the pumps along with its characteristics curves, model and technical data etc. are to be submitted for approval before purchase of pump).						
a)	Domestic water pumps (Treated water transfer pump to terrace tank)						
	Capacity 100 lpm						
	Head 50 M	Each	2.00			45000.0	90000.0
b)	Domestic water pumps (Raw water Transfer pump to terrace tank)						
	Capacity 100 lpm						
	Head 50 M	Each	2.00			45000.0	90000.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
	SUB TOTAL(Water Supply)				714,278.50		1,514,228.30

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
4.00	SEWARAGE & DRAINAGE						
4.01	Providing laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the pro-portion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete.						
a)	100 mm diameter	Metre	20.00	150.10	3,002.00		
4.02	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design:						
a)	100 mm diameter S.W. pipe/RCC NP2	Metre	20.00	496.90	9,938.00		
b)	150 mm diameter S.W. pipe/RCC NP2	Metre	150.00	607.70	91,155.00		
c)	250 mm diameter S.W. pipe/RCC NP2	Metre	50.00	819.20	40,960.00		
4.03	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating, brick masonry chamber with water tight C.I. cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:.						
a)	150x100mm size P type						
a.i)	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	10.00	1,280.00	12,800.00		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
4.04	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement:2 fine sand) including testing of joints etc. complete						
a)	150 mm dia R.C.C. pipe	Metre	150.00	254.50	38,175.00		
b)	250 mm dia R.C.C. pipe	Metre	50.00	342.45	17,122.50		
4.05	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand), R.C.C. top slab with 1:2:4 mix (1cement : 2 coarse sand : 4graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 (1cement : 4 coarse sand : 8graded stone aggregate 40 mm nominal size), inside plastering 12mm 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 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design.						
a)	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg):						
a i)	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	12.00	7,061.70	84,740.40		
4.06	Extra depth for manholes						
a)	Size 90 x 80 cm						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
a i)	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	2.00	4,061.70	8,123.40		
4.07	Constructing brick masonry circular type manhole 0.91m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement :4 coarse sand), in side cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement: 3 coarse sand: 6 graded stone aggregate 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design:						
a)	0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182kg., fixed in cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) including centering shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) :						
a i)	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	4.00	7,033.25	28,133.00		
4.08	Extra depth for circular type manhole 0.91m dia (at bottom) with beyond 0.91m to 1.67 m						
a)	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	0.50	3,498.25	1,749.13		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
4.09	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steel bar conforming to IS: 1786 having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	Each	45.00	256.75	11,553.75		
4.10	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 mix (1 cement:2 coarse sand:4 graded stone aggregate 20 mm 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 the drain etc. complete (including obtaining approval from DJB/Municipal corporation)						
a)	For pipes 100 to 250 mm dia	Each	1.00	275.00	275.00		
4.11	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
a)	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	10.00	3,193.50	31,935.00		
4.12	Constructing brick masonry open surface drain including factory made perforated RCC cover with edge protected with MS plate of 3 mm thick with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 fine sand) including earth excavation, 10cm thick bed concrete 1:5:10 (1 cement: 5 fine sand :10 graded stone aggregate 40mm nominal size) and 25mm thick cement concrete 1:2:4 (1 cement:2 coarse sand:4 graded stone aggregate 12.5 mm nominal size) for filling hunches including 12mm cement plaster 1:4 (1 cement:4 coarse sand) with a floating coat of neat cement inside the drain, its top and exposed side including disposal of surplus earth complete as per standard design.						
	25cm drain 30cm average depth						
a)	With F.P.S bricks	Metre	150.00			1,800.00	270,000.00

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
4.13	Constructing septic tank, of size 7.5mx2.7mx3.0m approx. height(Height to be fixed as per site requirement i.e. below invert level of last manhole (1.5 m water depth) , in RCC M20, 200 mm thick (minimum) walls and 400 mm (minimum) base slab all as per detail design including all excavation, 20 cm thick bed concrete in 1:4:8 (one cement: 4 fine sand: 8 stone aggregate 40 mm) cement plaster 1:3 (one cement :3 coarse sand) with a floating coat of neat cement, top slab in RCC M20, including centring, shuttering and steel work, also providing and fixing two nos.D.I. manhole cover & frame of size 560mm dia.(medium duty, lockable type) and cost of 75mm dia C.I. vent pipe upto 3 m height with C.I. Ventilating Cowl and providing & fixing 150 mm dia SW tees for inlet and outlet, C.I Rungs@300 mm c/c all complete in every respect as per drawing and as directed. The agency has to provide the shop drawings (structure and PHE) as per IS requirements and obtain the approval from HSCC.	Each	1.00			95000.0	95,000.00
4.14	Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.						
a)	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	2.00	15,228.15	30,456.30		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
4.15	Supply, installing, testing and commissioning vertical fully floodable type submersible sewage pump of non-corrosive material with shredder/cutter in close coupled design single stage, suitable for handling minimum 20 mm dia solids for transferring raw sewer from sump to outside the building with float switch for automatic start and stop arrangement with panel and wiring, chain and pulley, mechanical seal complete in all respect as per instruction of the Engineer in charge. (The shop drawing or the pumps along with its characteristics curves, model and technical data etc. are to be submitted for approval before purchase of pump).Star delta suitable starter complete in all respect for automatic/manual operation of pump,start and stop push button contactor with required overload production and single phase preventor.Electicl panal complet as per instruction of the Engineer in charge						
	Material of Construction (M.O.C): Corrosion Resistant in general : Casing — Cast Iron						
	: Impeller — Ductile cast iron						
	: Bearings — Anti friction, prelubricated ball bearings, packed with grease for life.						
	Motor: — Dry Motor with built in over load protection						
	Protection - IP68.						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
	Insulation Class - F						
	Duty of each pump						
i)	150 LPM against 8 M head (Sewage pump)	Each	1.00			70000.0	70,000.00
ii)	Electicl panal cable,etc complete as per instruction of the Engineer in charge	Set	1.00			40000.0	40,000.00
SUB TOTAL(SEWERAGE AND DRAINAGE)						410,118.48	475,000.00

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
5.00	EARTH WORK						
5. 01	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means in foundation,trenches or drains(not exceeding 1.5m in width or 10 sqm on plan) ,including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50m						
a)	All kinds of soil	cum	32.00	130.80	4,185.60		
5. 02	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m:						
a)	All kinds of soil						
i)	Pipes, cables etc. exceeding 80 mm dia but not exceeding 300 mm dia	metre	220.00	165.60	36,432.00		
5.03	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m	cum	12.00	83.80	1,005.60		
SUB TOTAL(EARTH WORK)					41,623.20		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
6.00	EXTERNAL WATER SUPPLY						
6. 01	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed. within a lead of 50 m :						
a)	All kinds of soil						
a.ii)	Pipes, cables etc, not exceeding 80 mm dia but not exceeding 300 mm dia	metre	130.00	165.60	21,528.00		
6.02	Providing and fixing gun metal non-return valve of approved quality (screwed end)						
a)	100 mm nominal bore						
a.i)	Horizontal	each	2.00			3500.0	7000.0
6.03	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) :						
a)	100 mm diameter						
a.i)	Class I	each	4.00	3068.35	12,273.40		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
6.04	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :						
a)	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	2.00	5251.80	10,503.60		
6.05	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :						
a)	20 mm diameter pipe	metre	20.00	5.15	103.00		
d)	100 mm diameter pipe	metre	100.00			50.0	5000.0
6.06	Providing and filling sand of grading zone V or coarser grade all-round the G.I./CPVC pipes in external work						
a)	20 mm diameter pipe	metre	20.00	55.50	1,110.00		
b)	100 mm diameter pipe	metre	100.00	105.80	10,580.00		
6.07	Providing and fixing G.I. Union in existing G.I. pipe line, cutting and threading the pipe and making long screws including excavation, refilling the earth or cutting of wall and making good the same complete wherever required:						
a)	20 mm nominal bore	each	2.00	282.9	565.80		
b)	100 mm diameter pipe	each	2.00			2700.0	5400.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
6.08	Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc. if required will be paid separately):						
a)	50 mm dia	each	1.00	4018.15	4,018.15		
6.09	Providing and laying D.I. specials of class k-12 suitable for push-on jointing as per IS:9523						
a)	Upto 600 mm dia	quintal	6.00	13,958.95	83,753.70		
6.10	Providing push-on-joints to Centrifugally (Spun) Cast Iron pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket						
a)	150mm dia pipes	joint	56.00	79.05	4,426.80		
6.11	Providing and laying S&S Centrifugally Cast (Spun)/Ductile Iron pipes confirming to IS:8329:						
a)	150 mm dia Ductile Iron Class k-7 pipes	metre	130.00	1,229.05	159,776.50		
6.12	Disinfecting C.I./D.I. water mains by flushing with water containing bleaching powder at 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory						
a)	150 mm diameter C.I./D.I. pipe	100metre	1.30	863.55	1,122.62		
6.13	Providing and fixing puddle flanged including 60 cm long GI pipe piece welded/threaded with MS plates 450x450x6 mm thick with both end screwed/flanged.						
a)	For 80 mm dia pipe	Each	2.00			950.00	1900.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
b)	For 100 mm dia pipe	Each	4.00			1200.00	4800.0
6.14	Providing and fixing suitable G.I. vent pipe upto 1m high Class-B (medium quality) with fittings complete as per drawing and as directed.						
a)	100mm Dia	Each	4.00			1200.00	4800.0
6.15	Providing and fixing double seal type D.I. Manhole cover of 560 mm clear internal diameter of over all heavy duty with locking arrangement complete in all respects.	Each	4.00			7500.00	30000.0
6.16	Providing and fixing garden hydrant of approved quality and make complete in all respect	each	4.00			450.0	1800.0
6.17	Providing and fixing G.I. pipes class B complete with G.I. fittings and clamps, including cutting and making good the walls etc.						
a)	20 mm dia nominal bore	Metre	20.00	188.05	3,761.00		
a)	100 mm dia nominal bore	Metre	100.00			1243.0	124300.0
SUBTOTAL (EXTERNAL WATER SUPPLY)						313,522.57	185000.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
7.00	RAIN WATER PIPING						
7.01	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	Each	18.00	32.75	589.50		
7.02	Providing and fixing rain water ,soil, waste and vent pipes.						
a)	100 mm dia.						
a i)	Centrifugally cast (spun) iron socketed pipe as per IS:3989	Metre	360.00	857.30	308,628.00		
b)	150 mm dia pipe as per IS:3989	Metre	110.00			2,100.00	231000.0
7.03	Providing and fixing M.S holder-bat clamps of approved design to Sand Cast iron/ cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls etc.						
a)	for 100 mm dia. pipe	Each	112.00	112.50	12,600.00		
b)	for 150 mm dia pipe	Each	32.00			131.6	4211.2
7.04	Providing and fixing plain bend of required degree.						
a)	100 mm						
a ii)	Sand cast iron S&S as per IS:3989	Each	14.00	296.35	4,148.90		
b)	150 mm	Each	4.00			1065.0	4260.0
7.05	Providing and fixing heel rest sanitary bend.						
a)	100 mm dia						
a.ii)	sand cast iron S&S as per IS-3989	Each	14.00	342.80	4,799.20		
b)	150 mm dia	Each	4.00			1211.0	4844.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
7.06	Providing and fixing collar						
a)	100 mm						
a.ii)	Sand cast iron S&S as per IS-3989	Each	98.00	238.25	23,348.50		
c)	150 mm	Each	28.00			930.0	26040.0
7.07	Providing lead caulked joints to sand cast iron /centrifugally cast (spun) iron pipes and fittings of diameter:						
a)	100 mm	Each	116.00	207.85	24,110.60		
b)	150 mm	Each	35.00			401.0	14035.0
7.08	Painting sand cast iron / centrifugally cast (spun) iron soil, waste vent pipes and fittings with paint of any colour such as chocolate, grey, or buff etc. over a coat of primer (of approved quality) for new work:						
a)	100 mm diameter pipe	Metre	360.00	28.75	10,350.00		
c)	150 mm diameter pipe	Metre	110.00			60.0	6600.0
	SUB TOTAL(Rain Water pipe & fitting)				388,574.70		290990.2

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
8.00	BOREWELL(1 No)						
8.01	Drilling by suitable rig as per IS : 2800-1979 (percussion or combination rig) or Reverse Rotary to suit site condition from ground level in all kind of soils and weathered rock including boulders (excluding rock) diameter of bore 300mm including carry out hydrological survey report before boring & getting the approval based on Hydrogeological survey before start of the work.Also getting approval from local authority if any required						
a)	0-30m	metre	30.00			300.0	9000.0
b)	30-60m	metre	30.00			400.0	12000.0
c)	60-90m	metre	30.00			550.0	16500.0
d)	90-120 m	metre	30.00			700.0	21000.0
8.02	Extra additional for drilling in Ordinary Rock if any found	metre	25.00			1200.0	30000.0
8.03	Extra additional for drilling in Hard Rock if any found	metre	25.00			1500.0	37500.0
8.04	Providing and lowering uPVC casing/housing pipe 150mm dia. with wall thickness 10 mm conforming to IS :12818 including sockets of standard design.	metre	70.00			1050.0	73500.0
8.05	Providing & fixing uPVC screen/slotted pipe with 1.5 mm to 3mm (slots as per strata condition) including sockets of standard design as per IS: 12818/1992.						
a)	150 mm dia uPVC socketed pipe with wall thickness 10.0 mm	metre	80.00			1200.0	96000.0
8.06	Providing and fixing in position threaded iron cap with locking arrangement of approved design to prevent foreign matters getting into the bore-hole as required.	Each	1.00			5500.0	5500.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
8.07	Providing and laying rounded pea gravel washed & served 3 to 6 mm nominal boreas per relevant ISI code.	Cum	16.00			2000.0	32000.0
8.08	Providing and laying cement concrete 1:2:4 mix for sanitary sealing of well at top.	Cum	1.00			3500.0	3500.0
8.09	Supplying, lowering and fixing in position reducer ,PVC bail plug with "U" hooks as per IS:2800-1964.	Each	1.00			1500.0	1500.0
8.10	Development of Tubewell including testing of yield depression & quality of water (for all parameters of potable water), contractor to obtain certificate for quality for water from Competent Authority approved by client or Engineer- In -Charge.						
a)	Development of Tube well by high capacity air compressor till the clear water discharge but not more than 100 hours.	per hour	80.00			300.0	24000.0
b)	Additional development of Tube well by high an over pumping unit till complete development of tube well does not clear by maximum 100 hours air compressor	per hour	50.00			450.0	22500.0
8.11	Tranportation, mobilisation and demobilisation or drilling equipment and ancillary equipment to site including clearing and cleaning the site after completion of work.	set	1.00			7000.0	7000.0
8.12	Providing and fixing brass full way valve with C.I. wheel of approved make, tested to a pressure of 21 kg/sqcm.						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
a)	80 mm dia	Each	1.00			950.0	950.0
8.13	Providing and fixing gunmetal non return valve of approved make tested to a pressure of 21kg/sqcm.						
a)	80 mm dia	Each	1.00			1050.0	1050.0
8.14	Providing & fixing G.I. pipes (heavy class)confirming to IS with special fittings in external works including earthwork ,excavationin all kinds of soil including ordinary rock,refilling, painting pipes & fitting complete in all respects.						
	80 mm dia	Metre	100.00			1150.0	115000.0
8.15	Providing & filling sand of grading zone V or coarser grade all around GI pipe in external work						
	80 mm dia	Metre	100.00			95.0	9500.0
8.16	Submersible pumps						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
	Providing and installing submersible pump and electrical panel suitable for 6" dia casing of bore with SS impeller, high tensile SS shaft, copper wound squirrel cage wet type induction motor 2880 rpm, 415 V, 50 Hz, 3 phase A.C. supply, conforming to ISS: 8034-1976, capacity 250-500 litre per minute at 70-120 m head along with a directly coupled submersible type squirrel cage electric induction 5 H.P(minimum) . motor suitable for operation on 400 V, 3 phase, 50 c.p.s. A.C. supply, water lubricated bearings and provided with pivoted segment type thrust bearings to withstand non-vertical lead with minimum wear and tear and duly fitted with device to take up the expansion of water with heating of motor, including supply, testing and commissioning of electrical panel from the same manufacturer, complete with all accessories in all respects. The contractor to obtain approval for model and make of pumpset & suitable Electrical panel after having yield report of fully developed tube well and submit actual bore strata chart.						
	including supplying laying and fixing water proof PVC insulated flat submersible cable 3x10 sqmm with end termination with its accessories. complete in all respect as required. 1 No. 3 Phase, fully automatic star-delta starter, type - II of 15 HP with thermal overload relay, contactor, Timer, Push Buttons and Auto-manual selector switch etc complete as required.	set	1.00			223458.0	223458.0
8.17	Carrying out Electrical logging of Borewell before lowering of pipe for analysiing of water quality including Electrical logging report, calculation etc.	Job	1.00			10000.0	10000.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
	SUBTOTAL (BOREWELL)						751458.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
9.00	RAIN WATER HARVESTING(4NOS.)						
9.01	Designing and Constructing of percolation pit cum perforated well 3000mm. dia upto 4000mm deep, 230 mm thick brick masonry work around upto 1.5 m deep with 75 class brick in cement mortar 1:4, 200 mm foundation concrete in 1:4:8 mix below brick work only, 150 mm thick precast removable RCC top slab with required steel reinforcement in cement concrete 1:2:4 mix, filled with coarse aggregate, SFRC covers, river pebbles of requisite size stone as shown in the drawing including centering and shuttering, as shown complete as per detailed drawings complete.	Each	1.00			98048.6	98048.6
9.02	Drilling as per IS : 2800-1964 (with percussion or combination rig) from ground level in all kind of soils including boulders (excluding rock) diameter of bore 450mm.						
a)	0-50m	Metre	30.00			700.0	21000.0
9.03	Extra for drilling in Ordinary Rock	Metre	5.00			1200.0	6000.0
9.04	Extra for drilling in Hard Rock	Metre	5.00			1500.0	7500.0
9.05	Providing and lowering of 200 mm dia uPVC blank/ slotted pipe with ribs, special fittings, jointing conforming to IS 12818 - 1992.	Metre	30.00			1200.0	36000.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
9.06	Constructing bar screen / settling tank, of sizes 4500x2500 with suitable depth up to 2.0 m in 1: 4 Cement Mortar (one cement : 4 coarse sand) height as per site requirement, in brick masonry 350mm thick walls upto water level and 230mm thick walls above water level & upto ground level, including all excavation, 20 cm thick bed concrete in 1:4:8 (one cement 4 fine sand 8 stone aggregate 40 mm), cement plaster 1:3 (one cement :3 coarse sand) with a floating coat of neat cement as inside finish , top slab in RCC 1:2:4, including centring, shuttering and steel work, also providing and fixing D.I. manhole cover & frame of size 605mm x 450mm of weight not less than 38 kg (frame + cover) and cost of 100mm dia C.I. vent pipe with C.I. Ventilating Cowl and suitable wire mesh provision for inlet, 115mm baffle walls extending 2/3 the width spaced@500mm c/c including finishing with 1:3 cement plaster 15mm thick with floating coat of neat cement slurry , all complete in every respect as per drawing and as directed to suit site condition.	Each	1.00			136652.3	136652.3
SUBTOTAL (RAIN WATER HARVESTING)							305200.9

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
10.00	SOLAR WATER HEATING SYSTEM & RECIRCULATION OF HOT WATER SYSTEM						
10.01	Supply, installation, testing and commissioning of solar water heating system, Thermosyphon type, all complete based on Flat plat collector system (Cu-Cu Type only) comprising of but not limited to the following:						
a)	Requisite number of Flat plate collectors of 2 sq. mtr. collector area. Collector absorber plate to be made of copper tubes & copper fins only						
b)	Hot water storage tank made of stainless steel 304- food grade quality with 100 mm Glass wool insulation and cladding with 24 SWG Aluminum sheet. One temperature measuring device and suitable inlet, outlet and drain connections on the storage tank to be provided.						
c)	Heat Exchanger - Cage type Internal Heat Exchanger made of SS pipes shall be provided inside the Solar Tank. Heat exchangers shall have min. heat transfer area of 0.24 sq. mtrs. for every 100 LPD calacity. Suitable make up tank for the Heat Exchanger circuit shall also be provided						
d)	Interconnecting system piping shall consist of B Class insulated GI pipes covered with 50mm thick glasswool & clad with 26 SWG Aluminium Sheet. All Gate/Ball valves shall be of ISI make.						
e)	Electrical control panel, cabling from panel to pumps shall be provided						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
f)	The solar collector shall be arranged on roof of building in such a way that shadow can be avoided and requisite number of MS support for collector/tanks of minimum 35x35x5 MS angle adequate for 150 Km/Hr wind speed.						
g)	Solar water heating system based on Flat plat collector system technology with output capacity of as mentioned below with hot water at 60 degree centigrade having required Nos. solar collectors . As per complete item as per technical specification of make BHEL/TATA/EMMVEE. The system has to be installed by Manufacturers authorised distributors/approved specialised firms of Solar water heating of approved makeThe shop drawing of the systems shall be provided by the agency as per site condition obtain the proper efficiency The system shall be procured after obtaining the approval of shop drawings from HSCC / Engineer-in-charge. The solar hot water will supply the hot water to all the geyser,in view of this provision the backup electrical heating system at terrace hot water tank will not be provided for non solar days.						
i)	Solar System of Capcity 1500 Litre/day (With minimum 12 nos of Collect) of 2.0 Sqm area	each	1.00			447711.0	447711.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
10.02	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.						
	Internal work- Exposed on wall						
a)	15 mm nominal outer dia pipes (SDR-11)	metre	10.00	133.95	1,339.50		
b)	20 mm nominal outer dia pipes (SDR-11)	metre	50.00	157.15	7,857.50		
c)	25 mm nominal outer dia pipes (SDR-11)	metre	50.00	197.90	9,895.00		
d)	32 mm nominal outer dia pipes (SDR-11)	metre	50.00	252.65	12,632.50		
e)	40 mm nominal outer dia pipes (SDR-11)	metre	20.00	348.25	6,965.00		
10.03	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.						
	Concealed work including cutting chases and making good the walls etc.						
a)	15 mm nominal outer dia pipes (SDR-11)	metre	100.00	219.55	21,955.00		
b)	20 mm nominal outer dia pipes (SDR-11)	metre	50.00	243.95	12,197.50		
c)	25 mm nominal outer dia pipes (SDR-11)	metre	25.00	298.85	7,471.25		

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
10.04	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end):						
a)	25 mm nominal bore	each	4.00	372.95	1,491.80		
b)	32 mm nominal bore	each	4.00	450.90	1,803.60		
10.05	Providing & fixing 9 mm thick thermal insulation tubing of elastomeric flexible material having hermetic blistered closed cell structure of expanded synthetic rubber over pipes/ fitting as per manufacturer's specifications etc.complete.						
a)	15 mm dia to 25 mm dia	each	285.00			45.4	12939.0
b)	32 mm dia to 50 mm dia	each	70.00			62.8	4396.0
10.06	Providing and fixing gun metal ball valve of approved quality						
a)	15 mm nominal bore	each	2.00			1797.8	3595.6
b)	20 mm nominal bore	each	3.00			2479.6	7438.8
	SUBTOTAL(SOLAR WATER HEATING SYSTEM & RECIRCULATING SYSTEM)				83,608.65		476080.4

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
11.00	WATER TREATMENT PLANT (for Domestic use))						
	Suplying, Installing, testing & commissioning of indoor package type water treatment plant of capacity 3.0 cum per hr. with 12 hours operation time, comprising of the following including all necessary piping, control valves, other accessories etc. complete as per drawing and as per drawing and as directed.						
	FILTER						
	Supply, installation & testing and commissioning of MULTI GRADE Filter vertical floor mounted fabricated with Fibre reinforced Plastic (FRP) with frontal piping & valves, back wash system & filter media etc. with single lever operated multiport valve system with standard fittings like manhole cover, pressure gauge at inlet & outlet, sampling cock, rinse drain valve, air vent valve with piping, bolts, nuts & rubber gaskets.						
	Flow rate = 3.0 cub. m/hour						
	Working pressure = 3.5 kg/Sq. cm.						
	UV WATER STERILISERS						
	High performance on line UV water sterilisers of capacity 2000lph designed on at least 50 J/Sq. M. UV dosage, comprising of glass UV chamber in SS 316 housing, UV lamp and electrical circuit, wall mounted model / line mounted model, capacity 50lpm, minimum lamp rating :150 watts - 1Nos.						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
	Supplying, installing, testing and commissioning vertical online/horizontal centrifugal pumping set with mechanical seal, C.I. Housing, C.I. volute and SS impeller & SS shaft connected to a TEFC induction motor of suitable HP for 415 volts, 3 phase, 50 cycles A.C. supply with 150 mm dia pressure gauge with gunmetal isolation cock, vibration eliminating pads, base plate wiring upto panel and equipment for water level controller to start and stop the pump automatically at predecided levels of the water in the tank with provision of protection for dry run etc. complete in all respect (The shop drawing or the pumps along with its characteristics curves, model and technical data etc. are to be submitted for approval before purchase of pump).						
	Filter feed pump(1 no.)						
	Capacity 50 lpm						
	Head 30M	Set	1.00			150000.0	150000.0
	Subtotal (Water treatment Plant,Pump and Equipment)						150000.0

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
12.00	WATER SUPPLY PUMP PANEL Supply, installation, testing and commissioning of following M.V. cubicle type totally enclosed, powder coated, wall mounted/ free standing type, dust, damp and vermin proof, indoor type Distribution Board/Panel complete with busbars, M.V. danger notice plate, interconnections with suitable capacity aluminium leads/solid aluminium strips/rods, connection of incoming and outgoing cables with thimbles, and having following incoming and outgoing switchgears complete as required.						
	Note1) :- All MCCB Should have Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should have spreader links & phase barriers.						
	Note2) :- All Incomer and outgoing Should have						
	"ON" and "OFF" LED indicating lamp and Trip and 2A control SP MCBs						
	Push button for CLOSE and TRIP						
	Digital voltmeter with selector switch (Only For Incomer)						
	Digital ammeter with selector switch with one set of suitable cast resin C.T. s						
	INCOMER :						
	125 Amp 415 volts, 35 KA (Isc), FP MCCB with e/f protection thermal magnetic release having variable current settings.						
	BUSBARS :						
	200 Amp TPN busbars of aluminium						
	OUTGOINGS :						

Name of Work:BOQ of Proposed 100 bedded MCH wing for district female hospital at Shahjahanpur, U.P. under NRHM							
Sl. No.	Description of Item	Unit	Total qty.	DSR 2012 Rate (Rs)	Amount DSR	Market Rate	Market Amount
1	2	3	4	5	6	7	8
	2 Sets of following						
	1 No. 32 Amp. 415/500 volts,16 KA, three Pole, Moulded Case Circuit Breaker with variable current setting . Single Phase preventer						
	5 Sets of following						
	1 No. 16 Amp. 415/500 volts,25 KA, three Pole, Moulded Case Circuit Breaker with variable current setting . 1 No. 3 Phase, DOL starter of 3 HP with thermal overload relay, contactor, Push Buttons and Switches etc complete as required. Single Phase preventer						
	2 Sets of following						
	1 No. 16 Amp. 415/500 volts,25 KA, three Pole, Moulded Case Circuit Breaker with variable current setting . 1 No. 3 Phase, DOL starter of 1 HP with thermal overload relay, contactor, Push Buttons and Switches etc complete as required. Single Phase preventer						
	2 Sets of following						
	1 No. 16 Amp. 415/500 volts,25 KA, three Pole, Moulded Case Circuit Breaker with variable current setting .						
	WATER SUPPLY PUMP Panel as mentioned above	Set	1.00			219,936.00	219,936.00
	Sub Total(Water supply Pump Panel)						219,936.00
	Note: Based on the tender drawing the agency has to prepare the internal & external plumbing shop drawing and obtain the approval of the same before start of work						
	End of plumbing BOQ						

PROJECT NAME: Proposed 100 bedded MCH wing for district female hospital at Shahajahanpur , U.P. under NRHM

ABSTRACT OF COST

S.No	DESCRIPTION OF WORK	DSR AMOUNT(Rs)	MARKET RATE AMOUNT(Rs)
1	FIRE FIGHTING	476,143.50	4,681,782.40
	Sub Total(Fire Fighting work)	476,143.50	4,681,782.40

PROJECT NAME: Proposed 100 bedded MCH wing for district female hospital at Shahajahanpur , U.P. under NRHM

Name of Works: BOQ of Fire Fighting Works

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
1.00	FIRE FIGHTING SYSTEM						
1.01	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329 :						
1.01.1	150 mm dia Ductile Iron Double Flanged	Metre	150.0	1389.40		208410.00	
1.02	Providing and laying D.I. specials of class K-12 suitable for push-on jointing as per IS : 9523						
1.02.1	Upto 600 mm dia	quintal	7.0	13958.95		97712.65	
1.03	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket :						
1.03.1	150 mm dia pipes	joints	65.0	79.05		5138.25	
1.04	Excavating trenches of required width for pipes, cables etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5m including getting out the excavated soil, and then returning the soil as required, inlayers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed within a lead of 50 m						
1.04.1	Pipes, cables etc exceeding 80 mm dia but not exceeding 300 mm dia	Metre	150.0	165.60		24840.00	

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
1.05	Providing, fixing jointing and testing of Heavy (class -C) G.I. pipes as per relevant IS :1239/4736 with special accessories like tees, elbow, gasket, flanges, flanged joints, rubber insertion nuts and bolts including earth work excavatin and trenching, wrapping pipekot 4mm thick 500mm width tar based plymaric corrosion protection tape or equivalent suitable to GI/ MS pipe line including applying uniform coat of cold pipekot primer complete 1 m below the ground level, refilling in layers not exeeding 20 cm in depth consolidated each deposited layer by ramming & watering complete in all respect as pe IS : 1022 (Under ground)						
a)	150 mm dia G.I. Pipe with flange joints (5.4 mm wall thickness)	Metre	50.0		3400.00		170000.00
b)	80 mm dia G.I. Pipe with flange joints	Metre	10.0		1777.00		17770.00
1.06	Heavy class G.I. pipes conforming to IS with accessories like tees, elbows, flanged joints, rubber insertion, nuts, bolts or welded joints including fixing the pipe with suitable flat iron strip clamps/brackets, structural members, dash fastener , cutting hole and chases in walls, floor, R.C.C. slab etc. and making good the same, including painting pipes and fittings with a primer coat of steel primer and two coats of postal red enamel paint etc. complete as required. (All the fitting i.e. tee /elbow, Valve shall be joint the pumps will flanged joints)						
a)	200 mm dia (with Flanged joints)	Metre	20.0		3250.00		65000.00
b)	150 mm dia (with Flanged joints)	Metre	200.0		1657.00		331400.00
c)	100 mm dia (with Flanged joints)	Metre	100.0		1101.00		110100.00
d)	80 mm dia	Metre	100.0		788.00		78800.00
e)	65 mm dia	Metre	30.0		639.00		19170.00
f)	50 mm dia	Metre	100.0		495.00		49500.00
g)	40 mm dia	Metre	130.0		377.00		49010.00
h)	32 mm dia	Metre	80.0		320.00		25600.00
i)	25 mm dia	Metre	425.0		253.00		107525.00

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
1.07	Providing and fixing Single headed hydrants flanged inlet with 63 mm female instantaneous outlet of gunmetal complete with male blank caps, chains conforming to IS:5290 type A with stainless steel orifice plate (if required) to keep the pressure not more than 3.5 kg/sq.cm at any point.	Each	18.0		6823.00		122814.00
1.08	Providing 63mm dia 15 m long reinforced rubber lined hose pipe conforming to IS: 636-1992 Part-II with gunmetal male & female coupling wire wound with pipe as required.	Each	28.0		4611.00		129108.00
1.09	Providing and fixing 63mm dia 15 m long canvas hose pipe complete with gunmetal male & female coupling wire wound with the pipe The pipe shall confirm to IS: 4927.	Each	8.0		3790.00		30320.00
1. 10	Providing and fixing Gunmetal branch pipe with 20mm dia nozzle conforming to IS:903. suitable for installation connections to hose coupling etc. as required.	Each	18.0		1745.00		31410.00
1.11	Providing and fixing Four way fire brigade connection housed in steel cabinet of size 900mm x 750mm x 400mm fabricated from 1.5mm thick M.S. sheet having lockable arrangement, openable glazed door with 4mm thick glass, including painting a coat of steel primer and two coats of postal red enamel paint, with necessary supports for the cabinet etc. with 150 mm dia. non return and butterfly valves complete in all respects.						
a)	4 Way - 150mm dia	Each	1.0		11712.00		11712.00
1.12	Providing and fixing Set of "Siamese" quadraplet instantaneous fire brigade connections comprising of two gunmetal instantaneous male inlet coupling 63mm dia with plug and cap, chain bends, tees etc for inlet to the static tank.	Each	1.0		14380.00		14380.00
1.13	Providing & Fixing 150 mm dia, 4 way suction coupling for firebrigade withdrawal of water from the fire tank	Each	1.0		14380.00		14380.00

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
1.14	Providing and fixing anodised glazed door shutter and frame of approved sections for Fire hose cabinet with dash fasteners (frame fabricated from 40 x 40 mm and shutter) 2100 mm high x 1200 mm wide x 600mm deep with locking arrangement, 4mm thick glass with beading including all accessories, complete as per drawing and as directed. The letters " HOSE CABINET" to be painted in red colour on the box complete in all respects.	Each	14.0		8500.00		119000.00
1.15	Providing and fixing Weather proof standard stand post type hose cabinet (900mm x 750 mm x 400 mm) out door type made of 1.5mm thick M.S. sheet having central opening glazed door with 4mm thick glass suitable for accommodating hydrants, 2 Nos. canvas hose pipe and branch pipe including necessary locking arrangements, painting one coat of primer and two coats of postal red enamel paint.. The shutters are to be lockable type. The words " hose cabinet" to be painted on the box.	Each	4.0		3275.00		13100.00
1.16	Providing and fixing cast iron body IS: 210 FG 220 and double flange gear simple operation type butterfly valve conforming to IS: 13095 with SS304 disc and shaft NITNLE rubber replaceable seat of the following size complete with bolts, nuts, washers and rubber insertions as per specification.						
a)	150 mm dia	Each	24.0		5828.00		139872.00
b)	80 mm dia	Each	1.0		2565.00		2565.00
c)	200 mm dia	Each	1.0		7200.00		7200.00
1.17	Supplying, testing, installation & commissioning of pressure switches for pumps including necessary wiring upto the control panel.	Each	5.0		2014.00		10070.00

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
1.18	Constructing masonry chamber 90x90x100 cm, inside with 75 class designation brick work in cement mortar 1:4 (1 cement: 4 fine sand) for sluice valve, with C.I. surface box 100mm top diameter, 160mm bottom diameter and 180mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design.						
	with F.P.S. bricks	Each	2.0	9021.30		18042.60	
1.19	Supplying and Fixing First Aid Hose Reel , wall mounting swinging type complete with drum & bracket of MS construction, spray painted in Post office Red, confirming to IS 884/1995 with upto date amendments, complete with the following as required.						
	36 Meter long 20 mm dia water hose Thermoplastic (Textile reinforced) Type - 2 as per IS : 12585						
	20 mm dia gun metal ball valve & nozzle.						
	Drum and brackets for fixing the equipments on wall.						
	Connection from riser with stop valve (gun metal) & M.S. Pipe	Each	14.0		6997.00		97958.00
1.20	Providing and fixing C.I. sluice valves (With cap) of approved quality complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) Class II						
a)	150 mm dia	Each	2.0		5200.40		10400.80
1.21	Supply, Installation, Testing and Commissioning of 100 mm dia Bourden type, Stainless Steel dial type Pressure Gauge including brass isolation valve and siphon pipe having caliberation of 0 - 16 Kg / cm ² .	Each	20.0		1196.00		23920.00

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
1.22	Supplying and Fixing of Fire Man's axe with heavy insulated rubber as per standard conforming to IS 926	Each	14.0		454.00		6356.00
1.23	Supplying and Fixing vane type waterflow switch with contacts suitable for installation on 50 mm to 150 mm dia pipeline for a service pressure upto 20 Kg/sq.cm.	Each	5.0		3788.00		18940.00
1.24	Providing, Fixing, Testing and Commissioning of Sprinkler Installation Control Valve of Cast iron body and brass / bronze working parts comprising of water motor, alarm, bronze seat clapper and clapper arm, hydraulically driven mechanical gong bell to sound continuous alarm when the Sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc. of size 200/150 mm dia, as required.	Each	1.0		64161.00		64161.00
1.25	Supplying, Installation, Testing & Commissioning modular construction master control annunciation panel for sprinkler with provision for requider No. of Zone (30% additional spares),eachsprinkler hydrant will have atleast 4 zone on each floor as approved by engineer.The panel shall have but not limited to the following arrangment.						
a)	Indication of Zone sprinkler						
b)	Indication of zone fault						
c)	Fire/fault hooter						
d)	Alarm cancel for fire/fault						
e)	Battery for emergency back up of 4 Hrs.	Set	1.0		95000.00		95000.00
1.26	Providing and Fixing 15 mm dia gunmetal / brass quartzoid type Sprinkler Head with quartz bulb and set to operate at specified temperature.						
a)	Pendent / Upright type, 68 C, Chrome plated	Each	50.0		276.00		13800.00
b)	Side wall extended throw 20 mm dia 68 C, Chrome plated	Each	400.0		479.00		191600.00

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
1.27	Fabricating, Supplying, Installation, Testing and Commissioning Air Vessel of continuous welded construction with flanged discharge header on the top of each riser fabricated out of 10 mm thick dished ends and 8 mm thick MS sheet, Air Release Valve complete with suitable drain arrangement with 25 mm dia gun metal wheel valve complete with all accessories etc. as required of the following sizes						
a)	1.2 Metre high and 250 mm dia	Each	2.0		9601.00		19202.00
1.28	Supply, Installation, Testing and Commissioning External Yard Hydrant Stand Post comprising of GI pipe 80 mm dia (heavy duty C class) from existing ringmain to about 1 meter above ground level and Single Headed Yard Hydrant Valve with 80 mm dia flanged inlet, instantaneous gunmetal coupling of 63 mm dia with cast iron wheel ISI marked, conforming to IS : 5290 (Type A), with ABS cap and chain etc.complete with all accessroies as required.	Each	4.0		11500.00		46000.00
1.29	Providing and placing on terrace polyethylene water storage tank ISI : 12701 MARKED indicating the BIS license No with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	Ltrs	20000.0	6.10		122000.00	
1.30	Supply, erection, testing & commissioning of exit glow sign board of size 200mm x 350 mm wall mounting signage consisting of photo luminescent coating on acrylic cover	Each	28.0		1031.00		28868.00
1.31	Providing and fixing fire extinguisher of carbon dioxide type consisting of brand new high pressure steel cylinder bearing IS: 7285 mark and having the approval of controller of explosives Nagpur, wheel type valve bearing IS:3224/15683 mark internal discharge tube, 1 meter long high pressure discharge hose, non conducting horn, suspension bracket, fully charged bearing IS: making fixed to wall as directed.						

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
a)	4.5kg capacity cylinder	Each	14.0		6900.00		96600.00
1.32	Providing and fixing 9 liters capacity fire extinguisher water type gas pressure conforming to IS marking, fixed to wall.IS:15683	Each	14.0		1642.00		22988.00
1.33	Providing and fixing ABC type fire extinguishers complete in all respects. IS:15683 ISI marked						
a)	Capacity 6.0 Kg.	Each	14.0		2200.00		30800.00
1.34	Providing and fixing ABC type automatic modular ceiling mounted type extinguisher with body powder coated 10 lts. Capacity min. 300 mm dia 68 degree centigrade bul temperature complete in all respect of approved make and model	Each	1.0		8000.00		8000.00
1.35	Fabricating, Supplying, Installation, Testing and Commissioning Air Vessel of continuous welded construction with flanged discharge header in pump house fabricated out of 10 mm thick dished ends and 8 mm thick MS sheet, Air Release Valve, complete with drain arrangement with 25 mm dia gun metal wheel valve complete with all accessories etc. as required of the following sizes						
a)	2 Metre high and 450 mm dia suitable to operate Jockey Pump, Main Fire Pump & Diesel Engine Driven Fire Pump	Each	1.0		24204.00		24204.00
1.36	Providing and fixing C.I. non-return valve complete with gunmetal seat, bolts, nuts washer & rubber insertions as required conforming to IS:5312.						
a)	150 mm dia	Each	4.0		25500.00		102000.00
b)	80 mm dia	Each	1.0		9700.00		9700.00
1.37	Supplying, installing, testing and commissioning of electric driven fire pump suitable for automatic operation consisting of the following (as per CPWD specification Part V-1985 for Fire Fighting and its amendments) (For Hydrant system & Sprinkler system).						

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
a)	Fire pump with stainless steel impeller, CI casing, SS shaft & mechanical seal shall be horizontal split casing centrifugal suction type multistage having following capacity and head so as to ensure a minimum pressure of 3.0 kg per square cm. at the highest and farthest out let at the specified flow complete with necessary strainer / foot valve suction side and pressure gauge on the delivery side including by pass arrangement for periodical testing of the working of the pumping set as required. The pump shall be provided with mechanical seals.						
b)	Squirrel cage type TEFC motor suitable for operation on 415V, 10%, 3 phases 50 Hz. system of suitable HP for the above pump with synchronous speed of 1500 RPM and flexible coupling. The pump motor should conform to IS: 325-1978.						
c)	Common bed plate fabricated from mild steel channel or cast iron type.						
d)	Suitable cement concrete pump foundation & vibration damping arrangement with cushy foot mounting as required.						
l)	Capacity 2280 LPM and Head 70 Metres	Each	1.0		450000.00		450000.00
1.38	Supplying, installing, testing and commissioning of diesel engine driven fire pump suitable for automatic operation consisting of the following (as per CPWD specifications PartV 1985.) (For Hydrant system & Sprinkler system).						

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
a)	Horizontal centrifugal type multi-stage, fire pump with stainless steel impeller CI casing, SS shaft & mechanical seal complete of following capacity and Head so as to ensure a minimum pressure of 3.0 kg per sq.cm. at the highest & farthest outlet at the specified flow, complete with necessary strainer pressure gauge on the delivery side etc. including by pass arrangement for periodical testing of the working of the pump set as required. The pump shall be provided with mechanical seals.						
b)	Water cooled cold starting type multi cylinder 4 stroke diesel engine, developing suitable BHP at 1500 RPM for the above pump set with automatic starting mechanism, cooling system shall be with radial cool engine, maintenance free batteries, battery charge unit, flexible coupling with the pump, common bed plate for mounting diesel engine fuel day tank fuel piping and pump and vibration damping arrangement by cushy foot mounting as required complete in all respects.						
c)	The engine shall be capable to drive the pump at 150% rated discharge at 65% head and shall be suitable for 10% overload capacity for one hour in any period of 12 hrs. continuous run.						
d)	Common bed plate fabricated from mild steel channel or cast iron type.						
e)	Isolation Valve						
f)	Suitable cement concrete pump foundation & vibration damping arrangement with cushy foot mounting as required.						
l)	Capacity 2280 LPM and Head 70 Metres	Each	1.0		850000.00		850000.00

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
1.39	Supplying, installation, testing and periodic commissioning of electric motor driven automatic pressurization pump set consisting of the following (as per specification) (For Hydrant system & Sprinkler system).						
a)	Centrifugal pump of specified capacity capable of building up pressure lost in any leakage in the system against atotal head (mentioned as under) complete with C.I. casing stainless steel impellor ; mechanical seal & S.S. shaft necessary strainer, pressure gauge on delivery side etc. including by-pass arrangement for testing of the working of the pumping set as required .						
b)	Squirrel cage A.C. induction motor suitable for operation on 415 V, 10% 3 phase 50 Hz. A.C. supply and of minimum 7.5 HP,2900 RPM, for the above pump with flexible coupling as per specification and conforming to IS: 325/ 1978 and shall be TEFC type only.						
c)	Common bed plate fabricated from mild steel channel or cast iron type.						
d)	Suitable cement concrete pump foundation with vibration damping arrangement with cushy foot or similar mounting as per required.						
l)	180 LPM & Head - 70 Metres	Each	1.0		75000.00		75000.00
1.40	Providing & fixing puddle flanged including 40 cm long GI pipe piece welded / threaded with MS plates 450x450x6mm thick with both end screwed / flanged						
a)	For 80 mm dia pipe	Each	2.0		1345.00		2690.00
b)	for 150 mm dia pipe	Each	2.0		1986.00		3972.00
1.41	Supplying, installing, testing and commissioning of electric motor driven type automatic pressurisation, pump set suitable for automatic operation of terrace down comer and consisting of the following (as per CPWD specifications Part V-1985) for fire fighting and its amendments).						

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
a	Fire pump with stainless steel impeller CI casing, SS shaft shall be horizontal end suction centrifugally type having a capacity of 900 LPM against a total head of 25m so as to ensure a minimum pressure of 3.0 kg/sqm at the highest and farthest out at the specified flow complete with necessary strainer with foot valve in suction side and pressure gauge on the delivery side including bypass arrangement for periodic testing of the working of the pumping set as required. The pump shall be provided with mechanical seals.(Including taking necessary approval of complete fire fighting scheme from local fire authority before and after start of work) {Agency also has to submit characteristic curve of the pumps, model & other technical data for approval before placing the order}						
b	Squirrel cage AC induction motor suitable for operation of 415 V ,+/-10%, 3 phase 50 HZ, AC supply and of minimum 7.5 HP,1500 RPM for the above pump with flexible coupling as per specification and conforming to IS 325-1978 and shall be TEFC type only						
c	Common base plate fabricated from mild steel channel of castiron type						
d	1 No. 3 Phase, fully automatic DOL starter, type - II of 10 HP with thermal overload relay, contactor, Timer, Push Buttons and Auto-manual selector switch etc complete as required.						
e	Suitable cement concrete pump foundation with vibration damping arrangement with cushy foot mounting as required and having provision of suitable weather protection cover.	set	2.0		75872.00		151744.00
2.00	Fire Fighting Panel(Electrical)						
2.01	FIRE PANEL						

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
	Supply, installation, testing and commissioning of following M.V. cubicle type totally enclosed, powder coated, free standing type, dust, damp and vermin proof, indoor type Distribution Board/Panel complete with busbars, M.V. danger notice plate, interconnections with suitable capacity aluminium leads/solid aluminium strips/rods, connection of incoming and outgoing cables with thimbles and having following incoming and outgoing switchgears complete as required.						
	Note1) :- All MCCB Should have Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should have spreader links & phase barriers.						
	Note2) :- All Incomer and outgoing Should have						
	"ON" and "OFF" LED indicating lamp and Trip and 2A control SP MCBs						
	Push button for CLOSE and TRIP						
	Digital voltmeter with selector switch (Only For Incomer)						
	Digital ammeter with selector switch with one set of suitable cast resin C.T. s						
	INCOMER :						
	320 Amp 415 volts, 35 KA (Isc), FP MCCB with thermal magnetic release having variable current settings.						
	BUSBARS :						
	500 Amp TPN busbars of aluminium						
	OUTGOINGS :						
	1 Sets of following						
	1 No. 125 Amp. 415/500 volts, 35 KA, three Pole, Moulded Case Circuit Breaker with variable current setting .						
	1 No. 3 Phase, fully automatic star-delta starter of 75 HP with thermal overload relay, contactor, Timer, Push Buttons and Auto-manual selector switch etc complete as required.						

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
	Single Phase preventer						
	2 Sets of following						
	1 No. 32 Amp. 415/500 volts, 25 KA, three Pole, Moulded Case Circuit Breaker with variable current setting .						
	1 No. 3 Phase, fully automatic star-delta starter of 10 HP with thermal overload relay, contactor, Timer, Push Buttons and Auto-manual selector switch etc complete as required.						
	Single Phase preventer						

Item No	Description Of Item	Unit	Total Qty.	DSR 2012 Rate(Rs)	Market Rate(Rs)	Amount DSR(Rs)	Amount Mkt(Rs)
1	2	3	4	5	6	7	8
	2 Sets of following						
	1 No. 32 Amp. 415/500 volts, 16 KA, three Pole, Moulded Case Circuit Breaker with variable current setting .						
	Neon indicating Lamps for "ON" , "OFF" & "TRIP" indication with 2A SP control MCBs.						
	2 Sets of following						
	1 No. 32 Amp. 415/500 volts,25 KA, three Pole, Moulded Case Circuit Breaker with variable current setting .						
	Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should have spreader links & phase barriers.						
	1 No. 3 Phase, DOL starter type - II of 7.5 HP with thermal overload relay, contactor, Push Buttons and Switches etc complete as required.						
	Single Phase preventer						
	1 Set of phase indicating lamp with 2A SP control MCBs						
	Neon indicating Lamps for "ON" , "OFF" & "TRIP" indication with 2A SP control MCBs.						
	2 Set of following (in a separate cubicle)						
	One no. Diesel engine auto starting kit with all necessary relay, controls, wiring etc to start 60 HP diesel engine when electrical driven fire pump fail to start including one no rectifier circuit, battery charger, batteries, DC Voltmeter, DC Ammeter etc. complete as required.						
	Fire Panel as mentioned above	Set	1.0		568072.60		568072.60
	Sub Total					476143.50	4681782.40
	Note: Based on the tender drawing the agency has to prepare the internal & external plumbing shop drawing and obtain the approval of the same before start of work						
End of Fire fighting BOQ							

SUMMARY OF COST ESTIMATE FOR ELECTRICAL WORKS .

S.No.	DESCRIPTION	Amount Figure (In Rs.)	In	Amount in Words (Rs.)
1	SUBHEAD 1: H.T. SUB STATION.	1425731		
2	SUBHEAD 2: MAIN LT PANEL.	2800000		
3	SUBHEAD 3 : DG SET & ACCESSORIES	957000		
4	SUBHEAD 4: FLOOR PANELS	546000		
5	SUBHEAD5: MCB DISTRIBUTION BOARDS.	724418		
6	SUBHEAD 6: WIRING	5305357		
7	SUBHEAD: 7 - LIGHT FIXTURE AND FANS	1637276		
8	SUBHEAD 8 : TELEPHONE SYSTEM	123340		
9	SUB HEAD 9 : FIRE DETECTION AND ALARM	1064190		
10	SUB HEAD 10 : LIFTS	2250000		
11	SUB HEAD 11: LT CABLES	772383		
12	SUB HEAD :12 EARTHING, SAFETY EQUIPMENTS AND MISC. ITEMS	467125		
13	SUB HEAD 13: OUT DOOR LIGHTING	67232		
	GRAND TOTAL FOR ALL ELECTRICAL WORKS	18140053		

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP

S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	SUBHEAD 1: H.T. SUB STATION.					
1.01	HT Panel					
	Supply, erection, testing and commissioning of HT panel, 400A ,11 kV, 3 Phase, 50 Hz., metal clad, dead front, 350 MVA rupturing capacity Vacuum Circuit Breaker as per the detailed specifications and drawings including connections etc. complete with following including POWER PACK door interlocking.Panel should be expendable type complete as per technical specifications and as required.					
A.	INCOMER :					
i)	<i>1 No. VCB having following</i>					
	1 No.400A, 11kV, 3 Phase, 50Hz., metal clad, dead front, 350 MVA rupturing capacity, Fully Drawout type, Vacuum Circuit Breaker (VCB)					
	1 set of 11kV/110V Potential Transformers with HRC fuses					
	1 Set of Phase indicating lamps with HRC fuses					
	1 No. 0-15 kV Digital voltmeter with selector switch					
	1 set of indicating lamps to indicate OPEN, CLOSE, TRIP, SPRING CHARGED, TRIP CIRCUIT HEALTHY					
	Push button for ON, OFF,TRIP&TRIP circuit healthy					
	3- Dual core CTs with rating 30/15/5/5A of 15VA burden and Accurracy class 1.0 for metering and class 5P10 for protection.					
	1 No. Digital Amps ammeter with selector switch					
	1 - No combined 3 element O/C & 1 element E/Fand short ckt IDMTL relay microprocessor based numerical rely					
	Digital frequency meter,Digital Tri vector meter.					
	1 Set of undervoltage relay and Overvoltage relay					
	Trip circuit supervision relay,Auxiliary relays with shunt trip coil for transformer protection					
	1 No. Master Trip relay					
	1 No. Digital Power factor meter					
	1 No. phase reversal relay					
	1 - No. restricted earth fault relay					
	1 no. Hooter					
	8 window annunciator					
	1- No. Set of terminal block with 20% extra terminal for connection with 2.5 sq.mm 4 core copper conductor PVC insulated PVC sheathed copper cable from panel to transformer					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP

S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	HT Panel as mentioned above	Set	1	500000		500000
1.02	TRANSFORMER					
	Supply, installation, testing and commissioning of 400 kVA, 11/0.433 kV, 3 Phase, 4 wire, 50 Hz., ON-AN Transformer for out door duty with a +/- 2.5 % ,+/- 5% and -7.5% off-load tap changer cable box at primary and secondary end shall be connected through CABLE, with double float buchholz relay protection, high winding temperature sensors, suitable earth leakage relay using CT at neutral earthing conductor with control cabling from transformer to HT Breaker (to trip primary breaker) complete with all fittings, interconnection of control cables and accessories, first filling of filtered dehydrated oil as per detailed technical specifications and as required.					
	Transformer as mentioned above	Set	1	510000		510000
1.03	H.T. CABLE					
	Supply of following sizes of 11 kV grade multicore aluminium conductor XLPE armoured power cable as per IS : 7098.					
	i) 3 Core, 95 sq mm	Meter	100	1400		140000
1.04	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.					
	i) upto 120 Sq mm	Metre	50	234		11715
1.05	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.					
	i) upto 120 Sq mm	Metre	20	48		968
1.06	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct /cable trays required.					
	i) upto 120 Sq mm	Metre	30	41		1238
1.07	Supplying and making end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size 3 Core, XLPE aluminium conductor cable of 11kV grade as required.					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP

S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	i) 95 sqmm 3 core (Heat Shrunken Type) Indoor Type	Each	3	7095		21285
	ii) 95 sqmm 3 core (Heat Shrunken Type) Outdoor Type	Each	2	9006		18011
1.08	Supplying and laying of 100 mm dia Double Walled Corrugated HDPE pipe as per IS 14930 with fittings and clamps etc as reqd.					
	i) 100 mm dia	Metre	20	842		16830
1.09	Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc as required.					
	i) 150 mm dia	Metre	20	361		7216
1.10	Providing & Fixing of Safety Equipmet					
	i) Providing and fixing H.T. (11kV) danger notice plate of 250mmX150mm made of mild steel, atleast 2mm thick and vitreous enameled white on both sides and with inscription in signal red colour on front side as required.	Each	2	133		266
	ii) Providing and fixing M.V. danger notice plate of 200mmX150mm made of mild steel, atleast 2mm thick and vitreous enamelled white on both sides and with inscription in signal red colour on front side as required.	Each	2	149		297
1.11	Supply & erection of the following Safety and testing Equipment including miscellaneous items like Clamps, nuts & Bolts , rawl plugs etc at suitable places in the Substation building as required.					
	a) Carbon Dioxide (Co2) type fire Extinguishers 4.5Kg Capacity Duly Charged conforming to IS 2828	Each	12	5255		63060
	b) Supplying, storing, handling and fixing in position First Aid Medical Box complete as per technical specifications as required.	Each	2	1136		2272
	c) Shock Treatment Chart in Hindi & english duly glazed mounted on Aluminum Frame with Sheet Glass as required.	Each	2	687		1374
	d) Supplying and laying of 12kV grade 1 metre wide anti skid chequered type rubber mat.	Meter	15	3000		45000
1.12	Providing and fixing of M.S Slotted angle iron with fixing materials and painting for cable racks in trenches /on wall etc. as required	KG	40	70		2800

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
1.13	Providing and fixing of M.S Slotted angle 'C' channel /Ladder type rack /tray includingn fixing material grouted in wall or haning with M.S rod hanger from ceiling including 2 coat synthetic enamel painting over 1 coat of res oxide primer etc. as required	KG	30	150		4500
1.14	Fabrication and Installing following size of preforted M.S Cable tray including Horizontal and vertical bends , reducers , tee, crossmember s and other accessories as required and duly Suspended from the ceiling with M.S 12mm rod suspenders and including paiinting etc. as required.					
	i) 150mmwidth x 50mm depth x1.6mm thickness	Metre	50	300		15000
	ii) 450mmwidth x 50mm depth x2.0mm thickness	Metre	50	725		36245
	iii) 600mmwidth x 50mm depth x2.0mm thickness	Metre	30	922		27654
	TOTAL SUBHEAD 1: H.T. SUB STATION					1425731
2.00	SUBHEAD 2: MAIN LT PANEL.					
2.01	MAIN L.T. PANEL cum AMF panel					
	Supply, installation, testing and commissioning of LT Panel, cubicle type, totally enclosed, free standing type, dust ,damp and vermin proof panel , powder coated, made up of CRCA sheet, complete with aluminum busbars, danger notice plate, interconnections with suitable capacity aluminum leads/solid aluminum strips/rods, necessary interlocking, and having incoming and outgoing switchgears with cable alley in front as mentioned below and complete as per technical specifications and as required. The size of cable alley shall be sufficient enough to accommodate the cable sizes as mentioned in the SLD/ specifications/ drawings etc.					
	Note :					
	Digital Multifunction metre should be suitable for true RMS metering.Metre should measure line and phase voltage , current of all three phases and neutral, HZ, PF, KW, KWH, including one set of CT.					
A.	INCOMER: 1 nos.					
	i) 1 Nos. MCCB FEEDER as per following details/ specifications:					
	630 Amp 415 volts, 50 KA (Ics), FP Microprocessor based MCCB with variable current settings and having microprocessor based O/L, S/C & E/F protection release.					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	Indicating lamps with 2A protection MCBs to indicate OPEN, CLOSE, TRIP					
	R, Y & B Phase indicating lamps (LED type) with 2A control SP MCBs					
	Digital multi function meter with one set of suitable CTs, CT shorting links, R/Y/B LED indicating lamps and 2A control SP MCBs					
	One set of dual core dual ratio CT of 630/315/5/5A for capacitor panel.					
	Digital Energy meter					
	ii 1 Nos. MCCB FEEDER as per following details/specifications:(Supply from D.G)					
	250Amp 415 volts, 35 KA (Ics) TPN MCCB with variable current settings and having microprocessor based O/L, S/C protection release.					
	Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should be with spreader link and phase barriers.					
	Indicating lamps (LED Type) with 2A protection MCBs to indicate OPEN, CLOSE, TRIP .					
	Digital Ampere Metre of suitable range with suitable set of CT's and ASS.					
	Digital multi function meter with one set of suitable CTs, CT shorting links, R/Y/B LED indicating lamps and 2A control SP MCBs					
	AMF panel for 160 KVA DG Set					
	AMF relay with selector switch and its allthe essential component / switchgears for AMF.					
	a) PROTECTION AND AMF COMPONENTS 160 KVA DG set.					
	Auto/manual/test/off selector switch					
	Suitable AMF Relay, 02 Nos. Four Pole Contractor one for Mains and other for DG set of suitable rating for 200 KVA DG set					
	MCCB for short circuit protection on both mains and for alternator					
	2 Nos over voltage relay, 2 nos. reverse power relay and 2 nos. under voltage relay.					
	3 sets of current transformers 15 P 10 accuracy for protection and 15 VA class - I for metering					
	Indicating lamps for load on mains and load on set.					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP

S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	Fuse for instruments.					
	Battery charger, complete with transformer/rectifier, DC voltmeter and ammeter, selector switch for trickle, off and boost the current adjustment.					
	Main supply failure monitor.					
	Supply failure timer					
	Restoration timer.					
	Control unit with three impulse automatic engine start / stop and failure to start lockout.					
	Impulse counter with locking and reset facility.					
	On/Off/ Control circuit switch with indicator.					
	Indicating lamp for shut down					
	High stator temperature.					
	Low lubricating oil pressure					
	Engine over speed					
	Engine fails to start					
	Full load/ maximum load warning.					
	One hour meter to indicate the number of hours set has operated					
	8 window alarm annunciator panel with hooter, push buttons, aux contactors etc. as required as per specification.					
	Mains supply voltage sensing relay					
	Emergency stop push button.					
	Selector switch for engine control ON/OFF					
	Instantaneous Earth Fault Relay Through Neutral.					
	Digital electronic KWH meter with metering Class-I CT's					
	Digital Electronics Frequency meter					
	Digital Electronic KW meter with metering class-I CT's					
	b ENCLOSURE :					
	Fabrication, PVC Sleeving, Control/Power Wiring and necessary electrical/ mechanical interlocking etc any other item required for proper functioning of the system complete as required.					
	Suitable rating of control wire from Mail panel to D.G set including glanding and termination at both ends with suitable lugs.					
B.	BUSBARS :					
	800 Amps Phase TPN busbars of aluminum.					
C.	BUS COUPLER :					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP							
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)	
	i 1 No. MCCB feeder each having following:						
	630 Amp 415 volts, 50 KA (Ics), FP Microprocessor based MCCB with variable current settings and having microprocessor based O/L, S/C & E/F protection release.						
	Indicating lamps with 2A protection MCBs to indicate OPEN, CLOSE, TRIP						
	R, Y & B Phase indicating lamps (LED type) with 2A control SP MCBs						
D.	OUTGOING.						
	i) 1 Nos. MCCB FEEDER as per following details/ specifications:						
	250Amp 415 volts, 35 KA (Ics) TPN MCCB with variable current settings and having thermal magnetic release O/L, S/C protection release.						
	Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should be with spreader link and phase barriers.						
	Indicating lamps (LED Type) with 2A protection MCBs to indicate OPEN, CLOSE, TRIP .						
	Digital Ampere Metre of suitable range with suitable set of CT's and ASS.						
	Digital energy metre with CT						
	CAPACITOR BANK 1 sets (100 KVAR) for Transformer. Each feeder having following component						
	100KVAR fully automatic microprocessor controlled capacitor panel with dielectric self healing type shunt capacitor 7% D-tuned harmonic filter with current limiting device discharge register accessories with connections..						
	1 No. power factor digital meter 1 No. APFC relay suitable for sequential operation of 8 Capacitor Banks						
	24 V DC Shunt trip coil. - 1 Set						
	Breaker control switch - 1 Set						
	Three Phase Under voltage relay - 1 Set						
	Three Phase Over voltage relay - 1 Set						
	1 Set "ON /OFF" push button with 2A, 3P MCB, 10KA						

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	One Set of IDMT Relay.(3 Phase Over Current + Earth Fault) or equivalent.					
	1 No. Digital Ammeter with selector switch and 3 NO. 250 /5A CTs					
	One Set Breaker ON/OFF/TRIP indicating lights with control MCB's.					
	One Set of R, Y, B phase indicating light (LED type) with 2A , 3P MCB, 10KA					
	2x25 KVAR LT Heavy Duty APP type power capacitor banks with 2 No. 25 KVAR 5.67% D tuned harmonic block reactor and TSM (Thyristor Switch Module) mounted in sheet steel enclosure.					
	2x 12.5 KVAR LT Heavy Duty APP type power capacitor banks with 2 No. 12.5KVAR 5.67% D tuned harmonic block reactor and TSM (Thyristor Switch Module) mounted in sheet steel enclosure.					
	2 Nos. MCCB FEEDER as per following details/ specifications:					
	63Amp Amp 415 volts, 25 KA (Isc), TP+NL MCCB with thermal magnetic release having variable current settings .					
	Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should be with spreader link and phase barriers.					
	2 Nos. MCCB FEEDER as per following details/ specifications:					
	32 Amp 415 volts, 25 KA (Isc), TP+NL MCCB with thermal magnetic release having variable current settings .					
	Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should be with spreader link and phase barriers.					
ii)	2 Nos. MCCB FEEDER as per following details/ specifications:					
	500 Amp 415 volts, 35 KA (Ics), FP thermal magnetic release MCCB with variable current settings and having O/L, S/C protection release.					
	Indicating lamps (LED type) with 2A protection MCBs to indicate OPEN, CLOSE, TRIP					
	Digital Ampere Metre with suitable set of CT's and ASS.					
iii)	1 Nos. MCCB FEEDER as per following details/ specifications:					
	250Amp 415 volts, 35 KA (Isc), TP+NL MCCB with thermal magnetic release having variable current settings .					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP

S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	Indicating lamps (LED Type) with 2A protection MCBs to indicate OPEN, CLOSE, TRIP .					
	Digital Ampere Metre of suitable range with suitable set of CT's and ASS.					
	Digital energy metre with CT					
iv)	1 Nos. MCCB FEEDER as per following details/ specifications:					
	200Amp 415 volts, 35 KA (Isc), TP+NL MCCB with thermal magnetic release having variable current settings .					
	Indicating lamps (LED Type) with 2A protection MCBs to indicate OPEN, CLOSE, TRIP .					
	Digital Ampere Metre of suitable range with suitable set of CT's and ASS.					
	Digital energy metre with CT					
v)	1Nos. MCCB as per following details/ specifications:					
	100 Amp 415 volts, 25 KA (Isc), TP+NL MCCB with thermal magnetic release having variable current settings .					
	Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should be with spreader link and phase barriers.					
	Indicating lamps (LED Type) with 2A protection MCBs to indicate OPEN, CLOSE, TRIP .					
	Digital Ampere Metre of suitable range with suitable set of CT's and ASS.					
	Digital energy metre with CT					
vi)	2 Nos. MCCB as per following specifications:					
	63 Amp 415 volts,16 KA (Isc), TP+NL MCCB with thermal magnetic release having variable current settings .					
	Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should be with spreader link and phase barriers.					
	Indicating lamps (LED Type) with 2A protection MCBs to indicate OPEN, CLOSE, TRIP .					
	Digital Ampere Metre of suitable range with suitable set of CT's and ASS.					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	Total SubHead 2: Main LT Panel Cum AMF Panel as mentioned above.	Set	1	2800000		2800000

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP

S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
3.00	SUBHEAD 3 : DG SET & ACCESSORIES					
	SOUND PROOF DG SETS OF 160 KVA.					
3.01	DG SET OF 160KVA.					
	Supply, installation, testing and commissioning of sound proof (silent type) Diesel Generating set having 160KVA Prime Power Ratings , 415 volt at 1500 RPM, suitable for 50 Hz, 3 phase system , suitable bhp, 0.85 load factor(Alternator should be such that it will give 160KVA output power at unity power factor) , radiator water cooled type diesel engine-alternator set mounted on common base frame, return fuel cooler, battery & battery charger,Fuel tank, Anti Vibration mounting pads, Engine alternator safeties, electronic governor including all accessories & their wiring as per technical specification. This includes the following:					
	- Supplying and fixing of suitable sizes High class MS pipe for DG exhaust complete with bends, elbow, flanges etc including silencer and catalytic convertor exhaust pipe for exhaust of DG sets including pollution control board norms and as required.					
	- Supply and fixing of 50mm thick compressed mineral wool insulation (Rock wool) for D.G. exhaust pipe with 22 gauge aluminum sheet cladding etc. as required for the under mentioned dia pipe.					
	- Fabrication of supports for exhaust pipe, for any other purpose out of suitable M.S. structural steel including supplying and applying of enamel paint of approved shade after one coat of steel primer of reputed company.					
	- Supplying and fixing of suitable capacity cable adapter box for alternator.					
	- Factory assembled Sound proof Canopy as per pollution control board requirement to achieve noise level desired during night condition, with base frame, doors, inspection window, fresh air supply fans, light fixtures for illumination with switch, wiring for light fixtures and power sockets, etc.					
	Supply of suitable hand manual pump with 20 Meter Hard PVC pipe for filling the Oil from drum in D.G set					
	First filling of Full capacity of Diesel in D.G set after complete testing of D.G set at site. For commissioning of D.G set Diesel will provided by the contractor.					
	- Any other item required for completion of system above (D.G. set)					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	TOTAL SUBHEAD 3: DG SETS	set	1	957000		957000

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP

S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
4.00	SUBHEAD 4: FLOOR PANELS					
	Supply, installation, testing and commissioning of following FLOOR PANELS wall mounted type totally enclosed, powder coated, dust, damp and vermin proof, indoor type complete with busbars, M.V. danger notice plate, interconnections with suitable capacity aluminum leads/solid aluminum strips/rods, connection of incoming and outgoing cables with thimbles, and having following incoming and outgoing switchgears complete as required.					
4.01	A) NORMAL SUPPLY FLOOR PANEL GROUND FLOOR (Normal Supply)					
	a) INCOMER:					
	500 Amp 415 volts, 35 KA (Ics), FPThermal magnetic MCCB with variable current settings and having based O/L, S/C protection release.					
	R,Y&B phase indicating lamp (LED type) with 2A control SP MCB					
	Extended rotary operating mechanism with door interlocking with defeat feature and padlock facility. MCCB should have spreader links & phase barriers.					
	1 No. 0 to 500 V Digital voltmeter with selector switch.					
	Digital ammeter with selector switch with one set of C.Ts.					
	b) BUSBARS:					
	800 Amp FP Aluminium busbars					
	c) OUTGOING:					
	i) 8 Nos. MCCB as per following details/ specifications:					
	125 Amp 415 volts, 25 KA (Isc), TP+NL MCCB with thermal magnetic release having variable current settings .					
	Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should be with spreader link and phase barriers.					
	Indicating lamps (LED Type) with 2A protection MCBs to indicate OPEN, CLOSE, TRIP .					
	Digital Ampere Metre of suitable range with suitable set of CT's and ASS.					
	ii) 2Nos. MCCB as per following details/ specifications:					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	100 Amp 415 volts, 25 KA (Isc), TP+NL MCCB with thermal magnetic release having variable current settings .					
	Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should be with spreader link and phase barriers.					
	Indicating lamps (LED Type) with 2A protection MCBs to indicate OPEN, CLOSE, TRIP .					
	Digital Ampere Metre of suitable range with suitable set of CT's and ASS.					
	iii) 3 no. 63Amps , 415 volts, 9 KA ,Four Pole, Miniature Circuit Breaker, with ON/ OFF indication.					
	iv) 2 no. 32 Amps , 415 volts, 9 KA ,Four Pole, Miniature Circuit Breaker, with ON/ OFF indication.					
	GROUND FLOOR (Normal Supply) as mentioned above	SET	1	326000		326000
4.02	GROUND FLOOR (Emergency Supply)					
	a) INCOMER:					
	250 Amp 415 volts, 35 KA (Ics), FP Thermal Magnetic Release MCCB with variable current settings and having based O/L, S/C protection release.					
	R,Y&B phase indicating lamp (LED type) with 2A control SP MCB					
	Extended rotary operating mechanism with door interlocking with defeat feature and padlock facility. MCCB should have spreader links & phase barriers.					
	1 No. 0 to 500 V Digital voltmeter with selector switch.					
	Digital ammeter with selector switch with one set of C.Ts.					
	b) BUSBARS:					
	400 Amp TPN Aluminium busbars					
	c) OUTGOING:					
	i) 8 Nos. MCCB as per following details/ specifications:					
	100 Amp 415 volts, 25 KA (Isc), TP+NL MCCB with thermal magnetic					
	Extended rotary operating mechanism with door interlock with defeat					
	Indicating lamps (LED Type) with 2A protection MCBs to indicate					
	Digital Ampere Metre of suitable range with suitable set of CT's and					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	iii) 2 Nos. MCCB as per following details/ specifications: 63 Amp 415 volts, 25 KA (Isc), TP+NL MCCB with thermal magnetic Extended rotary operating mechanism with door interlock with defeat Indicating lamps (LED Type) with 2A protection MCBs to indicate Digital Ampere Metre of suitable range with suitable set of CT's and					
	iv) 4no.32/40Amps , 415 volts, 9 KA ,Four Pole, Miniature Circuit Breaker, with ON/ OFF indication.					
	GROUND FLOOR (Emergency Supply) as mentioned above	Set	1	220000		220000
	TOTAL SUB HEAD 4 : FLOOR PANEL					546000
	SUBHEAD5: MCB DISTRIBUTION BOARDS.					
5.00	MCB DISTRIBUTION BOARD Supplying & fixing following way, three pole and neutral,supply distribution with(PPI) Per Phase Isolation Horizontal DB with CRCA sheet steel, Powdwer cated, rovision to mount 2P RCCB in each phase as subincomers equipped with colour coded wires, MCB distribution board, 415 volts,on recess/surface complete , terminal blocks, tinned copper busbar, neutral link, earth bar, Glazed Door, Door earthing , Insulated neutarl bar, Cable Ties , Blank Plate & Ckt. identification levels,din bar, detachable gland plate, interconnections, phosphatized and powder painted including earthing etc.Before procurement of DB the contractor has to take approval of DB schedule/ drawing of each DB from the Electrical Engineer, HSCC, as per technical specifications and as required.(but without MCB & RCCB),					
	Note: I/c - Four pole Isolator/MCB , Sub I/C- 2Pole RCCB, O/G- SP MCB					
	i 4 +2 way (8+6+12), Double door	Each	6	7800		46800
	ii 6 +2 way (8+6+18), Double door	Each	3	8450		25350
	iii 8+2 way (8+6+24), Double door	Each	14	9750		136500
5.01	DSR VERTICAL D.B (VERTICAL TYPE)					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP

S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	Supplying and fixing following ways surface/ recess mounting, vertical type, (Modular I/C) 415 volts, TPN MCB distribution board of CRCA sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, Door earthing, Glazed door, removable Gland plates & front plates insulated neutral bar earth bar, din bar for mounting MCB's, with provision of 100/160/200 amps TP 16 KA MCCB as incomer, interconnection between incomer MCCB and bus bars (but without MCB's/ MCCB) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)					
	Note: Before procurement Contractor has take approval for make of Vertical type D.Bs)					
	i) 4 Way TP (Double door)	Each	12	7498		89971
	ii) 6 Way TP (Double Door)	Each	2	9691		19382
5.02	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, B /C/D curve, miniature circuit breaker suitable for inductive load and lighting load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
	i) Single pole	Each	440	155		68244
	ii) Triple pole (25-32A)	Each	24	554		13296
	iii) Triple pole (40-63A)	Each	24	823		19752
	iv) Four pole MCCB 100AMP (16KA) TM	Each	6	5400		32400
	v) Four pole MCCB 125AMP (16KA) TM	Each	8	7200		57600
5.03	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
	i) 25 amps-40amp (100 MA)	Each	18	1619		29142
	ii) 40 amps (300 MA)	Each	51	1619		82569
5.04	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32amps 240 volts "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	each	6	629		3775

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
5.05	Supplying & fixing 240 volts, miniature circuit breaker suitable for lighting & other loads of following poles in the existing MCB DB complete with connections, testing & commissioning etc. as per technical specifications & as required.					
	i) Single pole (0.5 Amps to 4 Amps ('D' Series)	Each	10	900		9000
5.06	Supplying & fixing following rating, double pole, 240 volts, Miniature Circuit Breaker (MCB),in the existing MCB DB complete with connections, testing & commissioning etc. as per technical specifications and as required.					
	i) 32 Amp	Each	4	365		1460
5.06	Supplying & fixing following rating, Four pole, 415 volts, Miniature Circuit Breaker (MCB),in the existing MCB DB complete with connections, testing & commissioning etc. as per technical specifications and as required.					
	i) (25 -32)Amps	Each	9	1310		11790
	ii) 40-63 Amp	Each	14	1940		27160
5.07	Supplying & fixing following rating, four pole, 415 volts,Residual Current Circuit Breaker (RCCB) having a sensitivity current upto 300 mA in the existing MCB DB complete with connections, testing & commissioning etc. as per technical specifications and as required.					
	i) (25 -32)Amps	Each	9	2049		18441
	ii) (40-63)Amps	Each	14	2249		31486
5.08	Supplying and fixing Single pole Blanking plate in the existing MCB DB complete as required.	Each	30	10		300
	TOTAL SUB HEAD-5: MCB DISTRIBUTION BOARDS AS MENTION ABOVE .					724418
6.00	SUBHEAD 6: WIRING WIRING					
6.01	i) Wiring for light point/fanpoint/ exhaust fan point/call bell point with 1.5 sq.mm. PVC insulated, fire retardant low smoke (FRLS) copper conductor cable, single core/ multi strand, in steel conduit (Including supplying & recess laying of MS conduit and accessories) including the following and complete as required.					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	ii) Supplying and Fixing Modular type switches (modular Bell push in case of call bell points) in suitable size modular metal boxes, base plate & modular cover plates, space for fixing electronic fan regulator in case of fan point wiring & space for fixing 5A socket on the board etc.					
	iii) Supplying and fixing Hexagonal fan Boxes with 3 mm thick hylem sheet covers in case of Fan Points					
	iv) Supplying & Fixing Ceiling Rose in case of Exhaust Fan Points etc.					
	Note :					
	i) Unless otherwise specified all the conduiting work to be done in recess					
	Point wiring as mentioned above	Point	850	1031		876095
	v) Wiring for secondary light point(Group point wiring / fan point/ exhaust fan point/ call bell point with 3x1.5 sq.mm FR PVC insulated, fire retardant low smoke (FRLS) copper conductor single core cable in surface / recessed steel conduit, (looped from above primary point wiring and controlled by same modular switch .)etc as required.					
	Point wiring as mentioned above	Point	150	630		94500
6.02	i) Wiring for twin control light points with 1.5 sq.mm. PVC insulated, FRLS copper conductor cable in MS conduit (including supplying and recess laying of MS conduit) including the following and complete as required.					
	ii) Supplying and Fixing Modular type two numbers 2 Way switches in suitable size modular metal boxes, base plate & modular cover plates etc.					
	Note :					
	i) Unless otherwise specified all the conduiting work to be done in recess					
	Wiring for twin control light points as mentioned above	Point	10	1089		10890
6.03	Wiring for 5A light plugs & TV points with 1.5 sq.mm. PVC insulated, FRLS copper conductor cable including one number 1.5 sq.mm. PVC insulated, copper conductor cable for earthing in surface/recessed ISI marked MS conduit (including supply and recess laying of ISI marked MS conduit) as per technical specifications and as required.	Point	80	950		76000

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
6.04	Wiring for (Three sockets 5A & one switch 10Amp) with 2.5 sq.mm. PVC insulated, FRLS copper conductor cable including one number 2.5 sq.mm. PVC insulated, copper conductor cable for earthing in surface/recessed MS conduit (including supply and recess laying of conduit) as per technical specifications and as required.(Computer point)	Point	40	1052		42080
6.05	Wiring for 16 amp power plug with 2X4 sqmm PVC insulated, FRLS copper conductor, single core/multi strand cable in surface/recessed MS conduit (including supply and recess laying of MS conduit with all accessories) along with 4 sqmm PVC insulated, copper conductor, single core/multi strand cable for loop earthing etc per technical specifications & as required.					
	i	Directly from MCB-Distribution Board to the Socket Outlets	Point	160	1565	250400
	ii	Loop from one power point to nearest second power point	point	20	230	4600
6.06	Wiring for Bed Power (Three sockets 5 amp three pin & one 15 Amp switch) with 4 sq.mm. PVC insulated, FRLS copper conductor cable including one number 4 sq.mm. PVC insulated, copper conductor cable for earthing in surface/recessed MS conduit (including supply and recess laying of conduit) as per technical specifications and as required.(2 bed points looped)	Point	80	328		26224
6.07	Wiring for 20 Amp /32 Amp power plug with 2X6 sq.mm. PVC insulated, FRLS copper conductor multi strand cable in surface/recessed in MS conduit (including supply and recess laying of MS conduit with all accessories) along with 1X6 sqmm PVC insulated FRLS copper conductor for loop earthing, as per technical specifications & as required.(AC Point)	Point	30	1600		48000
6.08	Wiring for Submain/circuit wiring with following size of PVC insulated FRLS copper conductor single core/multi strand cable in recessed steel conduit (including supply & laying of recessed conduit) as required.					
	i)	2X2.5 Sqmm with 1 No. 2.5 sqmm PVC insulated FRLS copper conductor for earthing.	Metre	13500	230	3105000
	ii)	4X6 Sqmm with 2 No. 6 sqmm PVC insulated FRLS copper conductor for earthing	Metre	80	633	50618

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	iii) 4X10 Sqmm with 2 No. 10 sqmm PVC insulated FRLS copper conductor for earthing	Metre	80	1014		81115
	iv) 4X16 Sqmm with 2 nos 16 sq mm PVC insulated FRLS copper conductor for earthing.	Metre	280	1423		398345
6.09	Supplying and fixing suitable Module metal box on surface or in recess including providing and fixing 3 pin 5/6 amps. modular socket outlet with shutters and 5/6 amps. modular type switch, base plate, modular cover plate, connections etc. and all civil works 'complete as required.	Each	80	340		27200
6.10	Supplying and fixing suitable module modular metal box on surface or in recess including providing and fixing 6 pin 15/16 A modular socket outlet with shutters and 15/16 A modular switch, base plate, modular cover plate, connections, etc. and all civil works complete as required.	Each	160	485		77600
6.11	Supply, Installation, Testing & Commissioning 100 Amps four pole MCCB in a sheet steel enclosure with extended rotary operating mechanism complete with all accessories as required.	Each	1	7000		7000
6.12	Supply, Installation, Testing & Commissioning 63 Amps four pole MCCB in a sheet steel enclosure with extended rotary operating mechanism complete with all accessories as required.	Each	4	7000		28000
6.13	Supplying and fixing suitable Module metal box on surface or in recess including providing and fixing two nos 3 pin 5/6 amps. modular socket outlet with shutters and one no. 5 amps. modular type switch, base plate, modular cover plate, connections etc. and all civil works 'complete as required. (For TV Points)	Each	4	485		1940
6.14	Supplying and fixing suitable Module metal box on surface or in recess including providing and fixing three nos 3 pin 5/6 amps. modular socket outlet with shutters and one no. 10 amps. modular type switch, base plate, modular cover plate, connections etc. and all civil works 'complete as required. (Computer)	Each	10	855		8550

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
6.15	Supplying and fixing suitable Module metal box on surface or in recess including providing and fixing three nos 3 pin 5/6 amps. modular socket outlet with shutters and one no. 15 amps. modular Indicating type switch, base plate, modular cover plate, connections etc. and all civil works 'complete as required. (For Bed Points)	Each	80	855		68400
6.16	Supply and fixing following AC Moduler box complete with 20/32 AMP SP MCB with 20/32 AMP socket with plug ofr 240 volt supply on surface or recess complete with all accessories including connections, testing and commissioning etc. as required.	Each	30	500		15000
6.17	Supply and fixing 3phase 20/ 32 amp industrial socket with tpn MCB in sheet metal enclouser on surface/ recess complete with all accessories including connection, testing and commissioning etc. as required.	Each	6	800		4800
6.18	Supplying, providing & fixing musical bell of approved make complete as required.	Each	6	500		3000
	TOTAL SUBHEAD: 6- WIRING					5305357
	SUBHEAD: 7 - LIGHT FIXTURE AND FANS					
7.00	LIGHT FIXTURES AND FANS					
7.01	Supply of following light fixture with high efficiency electronic/ dimmable ballast, starter, tubes/lamps, capacitor, reflector, diffuser, MS body/housing holder etc. complete with all fixing accessories as required.					
i	1XTL-5 28 watt box type flourescent light fixture with reflector (Philips TMS 122M 1XTL5 28 W EBT or approved equivalent) (136b/136bw)	Each	6	1562		9372
ii	2X TL528 watt box type flourescent light fixture with reflector (Philips TMS 122M2XTL528 W EBE or approved equivalent) (236b)	Each	2	1800		3600
iii	1XTL-5 28 watt box type flourescent light fixture without reflector (Philips TMS 122M 1XTL5 28 W EBT or approved equivalent) (136b/136bw)	Each	280	1212		339360

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP							
S.No.		Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	iv	2X TL528 watt box type flourescent light fixture without reflector (Philips TMS 122M2XTL528 W EBE or approved equivalent) (236b)	Each	10	1450		14500
	v	1X36 watt surface mounted type flourescent light fixture with opal acrylic diffuser (Philips TCS019 1XTL-D36W EBT or approved equivalent) (136AC1)	Each	18	1775		31950
	vi	1X36 watt Surface/recessess mounted flourescent light fixture (Philips TCS 306 1XTL-D-36W HF EBE 136 or approved equivalent) 136SMO1	Each	150	2450		367500
	vii	2X36 watt Surface/recessess mounted flourescent light fixture (Philips TCS 306 2XTL-D-36W EBE 236 or approved equivalent) 236SMO1	Each	60	3000		180000
	viii	2X28 watt recess mounted flourescent light fixture (Philips TBS 520 2XTL 28 W EBE MI or approved equivalent) 136RMO1	Each	15	2700		40500
	ix	2X TL5 28 watt recess mounted mirror optics flourscent CAT-2 light fixture (Philips TBS 669M 2XTL528 W EBP D6 or approved equivalent). (236 RMO1)	Each	8	6166		49328
	x	2X TL5 28 watt recess mounted mirror optics flourscent light fixture (Philips TBS 869 2XTL528 W EBP D8 or approved equivalent). (236 RMO3)	Each	8	2600		20800
7.02		Supply of following compact flourescent light fixture with electronic ballast, starter, capacitor, yellow light lamps, reflector, diffuser, MS body/housing holder etc. complete with all fixing accessories as required.					
	i	1x 8watt CFL Bulk Head light fixture with Heavy duty dia cast Body (Anchor Model No.19337 or equivalent) BH	Each	8	320		2560
	ii	1X13 watt mini Mirror top light with Acrylic cover & Reflector (Anchor 23527 or approved equivalent)	Each	50	345		17250
	iii	Surface mounted Batten holder (Plastic) with 9watt/13 watt CFL	Each	80	200		16000
	v	1x13watt CFL Down light fixture with frosted glass (Anchor cat no. 92472 or equivalent)	Each	44	700		30800

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP							
S.No.		Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	vi	1x 25 watt down light fixture for stair case (Anchor-92577 or Equivalent)	Each	50	900		45000
	viii	2X18 W recessed mounted down light fixture with low glare & matt finish reflector (Philips FBH 145M2XPL-C/4P 18W HFM 240V or approved equivalent) DL2	Each	6	2200		13200
7.03		Supply of following ceiling fans (Crompton Greaves High Breeze or approved equivalent) complete with double ball bearing, motor, blades, downrod, canopies, capacitor, modular type electronic fan regulator, suitable for operation on 230 volts, 50 Hz., 1 phase, AC supply complete as required					
	i	900 mm sweep	Each	90	1977		177930
	ii	1400 mm sweep	Each	60	2116		126960
7.04		Supply of 900 RPM, 450 mm (Crompton Greaves Trans Air or approved equivalent) exhaust fan suitable for single phase 230 volts, 50 Hz., AC supply complete with motor, louvers/shutters etc. complete as required.	Each	5	4961		24805
7.05		Supply of 900 RPM, 305 mm (Crompton Greaves Trans Air or approved equivalent) exhaust fan suitable for single phase 230 volts, 50 Hz., AC supply complete with motor, louvers/shutters etc. complete as required.	Each	8	3442		27536
7.06		Supply of 450 mm sweep, crompton greaves model high flow 18" wall mounted fan complete with double ball bearing, motor, blades, capacitor etc suitable for single phase 230 volts, 50 Hz., AC supply, complete as required.	Each	4	1900		7600
7.07		Installation, testing and commissioning of prewired, flourescent fittings of all types, complete with all accessories and tube etc. directly on ceiling/wall, including connections with 1.5 sq.mm. PVC insulated, FRLS copper conductor, single core/ multi strand cable etc. as required.	Each	601	75		45075

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
7.08	Installation, testing and commissioning of prewired, compact flourescent lamp fixture (CFL fxtures)of all types, complete with all accessories and lamp etc. directly on ceiling/wall, including connections with 1.5 sq.mm. PVC insulated, FRLS copper conductor, single core/ multi strand cable etc. as required.	Each	300	75		22500
7.09	Installation, testing and commissioning of ceiling fan and modular type electronic fan regulator(Electronic regulator to be fixed in switch board) including wiring the down rod and connection with 1.5 sqmm FR PVC insulated, copper conductor single core/multi strand cable including providing & fixing phenolic laminated sheet cover on the fan box, etc. as required.	Each	150	125		18750
7.10	Installation, testing and commossioning of exhaust fan up to 450 mm sweep in the opening, including making the hole to suit the size of the above fan including , fixing of louvers/ shutters with frame making good the damages etc. as required.	Each	13	300		3900
7.10	Installation, testing and commissioning of wall mounted fan up to 450 mm sweep including supply and fixing wall bracket arrangement complete as required.	Each	5	100		500
	TOTAL SUBHEAD 7 : LIGHT FIXTURE & FANS					1637276
	SUBHEAD 8 : TELEPHONE SYSTEM					
8.00	TELEPHONE SYSTEM					
8.01	Supplying and drawing following pair 0.5 sq mm FR PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.					
	i 2 Pair	Metre	1400	17		23800
8.02	Supplying, Installation, testing and commissioning of following sizes of telephone distribution board in M.S. hinged type lockable box duly painted complete with Krone type tag block etc. including terminations of cable as required.					
	i 10 Pair	Each	7	320		2240
	ii 50 pair	Each	1	1000		1000

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
8.03	Supplying and drawing of following pairs .5 mm dia annealed bare copper conductor Polythene insulated, core twisted into pairs armoured telephone cable on surface/tray with saddels etc. complete as required.					
	i 10 Pair	Metre	60	180		10800
8.04	Supplying and drawing of following pairs 0.5 mm dia annealed bare copper conductor Polythene insulated, core twisted into pairs armoured jelly filled telephone cable in the existing trench/ hume pipe/ GI pipe etc with saddels etc. complete as required.					
	i 50 Pair	Metre	100	500		50000
8.05	Supplying and fixing of following sizes of rigid PVC conduit heavy duty along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.					
	i 20 mm	Metre	200	55		11000
	ii 25 mm	Metre	100	65		6500
8.09	Supply, installation, testing and commissioning of following telephone instruments as per technical specification and as required :					
	i) Electronic push button subscriber telephone instruments DOT approved. (To Be approved by HSCC Engineer at the time of supply)	30	Each	600		18000
	TOTAL SUB HEAD 8:TELEPHONE SYSTEM					123340
9.00	SUB HEAD 9 : FIRE DETECTION AND ALARM FIRE DETECTION AND ALARM SYSTEM					
9.01	Supply and drawing of sheilded & twisted following sizes of PVC insulated FRLS copper conductor cable in surface/recessed MS conduit (including Supplying and fixing of MS Conduit) complete as required.					
	i 2X1.5 sqmm	Metre	1080	150		162000
	ii 4x 1.5 Sqmm	Meter	20	200		4000
9.02	Supply, installation, testing and commissioning of the following addressable type fire detection and alarm accessories as per technical specification & complete with connections etc. as required.					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP							
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)	
	i Optical type Smoke Detector	Each	120	4500		540000	
	ii Heat Detector	Each	4	4500		18000	
	iii Manual Break Glass Unit in MS enclosure	Each	12	1500		18000	
	iv Fire Alarm Bell / Hooter of suitable range to cover the complete floor, in MS enclosure.	Each	12	1500		18000	
	v Response indicator	Each	63	130		8190	
9.03	Supply, Installation, testing and commissioning of 2 loop microprocessor based addressable type Fire Detection & Alarm Panel complete with inbuilt power supply, battery charger with SMF batteries for minimum 24 hours back-up. The panel shall have a communication module . The panel should have rectifier, loop card, minimum 80 character LCD unit to indicate fire/ fault signals with address provision for external/ internal printer to print the details complete as per technical specifications and requirement of Local Fire Authority and as required.	Set	1	275000		275000	
9.04	Supply testing and commissioning of isolator module as per specifications.	nos.	4	3500		14000	
9.05	Supply, Installation, testing and commissioning of addressable monitor modules.	Each	2	3500		7000	
	TOTAL SUB HEAD 9 : FIRE DETECTION AND ALARM					1064190	
	SUB HEAD 10 : LIFTS						
10.00	Design, manufacture, supply, installation, testing and commissioning of following 15 passenger Hospital lift , serving different floors in the lift shaft including machine room at top. The lift should be as per detailed specification/ drawing enclosed as required and as under:						
	- Travel: As per architectural drawing.						
	- Controller: A.C. variable voltage & variable frequency						
	- Automatic rescue device complete with dry maintenance free batteries as required.						
	- Operation: Microprocessor based single automatic push button/ simplex selective collective/ duplex collective selective with / without attendant.						
	- 415 V, 3 phase, 50 Hz, 4 wire system						

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP							
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)	
	- Type of doors: a) Car : Power operated, horizontal sliding stainless steel scratch proof. (b) Landing doors: Stainless steel scratch proof. Lift landing doors shall have a fire resistance of one hour.						
	- Car Enclosure : Scratch proof stainless steel						
	- Mirror of suitable size to be fixed inside the lift car.						
	- Voice announcement system in the car to announce the position of the elevator in the hoistway as the car passes or stops at a floor served by the elevator.						
	- Telephone with minimum two connections one at operator's room and other at guard/ security room and the emergency signal with re-chargeable batteries as source of supply be made in the lift car.						
	- Toe guard, IR curtain on full height, two phase fireman's drive control/ switch and potential free contacts etc to be provided.						
	i Floors : (Ground+ 5 Floor) (6 Stops & 6 Openings) Speed : 0.5 to .75 MPS.	Each	1	2250000		2250000	
	TOTAL SUB HEAD 10: LIFTS					2250000	
	SUB HEAD 11: LT CABLES						
11.00	LT CABLES						
11.01	Supply of following sizes of 1.1 kV grade multicore aluminum conductor armoured XLPE cable as per IS 7098.						
	i 3.5C X 400 Sq.mm	Metre	150	2200		330000	
	ii 3.5C X 300 Sq.mm	Metre	100	1700		170000	
	iii 3.5C X 240 Sq.mm	Metre	50	1410		70500	
	iv 3.5C X 35 Sq.mm	Metre	50	325		16250	
	v 3.5C X 25 Sq.mm	Metre	50	265		13250	
	vi 2 Core 10 Sq mm	Metre	50	86		4300	
11.02	Supply , Laying , termination of cable including lugs and cable gland on surface/ tray/trench of following sizes of 1.1 kV grade XLPE armoured cable with copper conductor as per IS 7098.						
	i 2x2.5 sq mm	Metre	30	200		6000	
	ii 4x 2.5 sqmm	Metre	50	550		27500	
	iii 16x 2.5 sqmm	Metre	30	1600		48000	

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP							
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)	
11.03	Laying of one number PVC insulated and PVC sheathed power cable 1.1kV grade direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required						
	i Upto 35 sq. mm	Metre	60	180		10800	
	ii Above 35 sq. mm and upto 95 sq. mm	Metre	30	186		5580	
	Above 185 sq. mm and upto 400 sq. mm	Metre	180	212		38160	
11.04	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.						
	i Above 35 sq. mm and upto 95 sq. mm	Metre	20	20		400	
	ii Above 95 sq. mm and upto 185 sq. mm	Metre	10	27		270	
	iii Above 185 sq. mm and upto 400 sq. mm	Metre	30	48		1440	
11.05	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.						
	i Upto 35 sq. mm	Metre	15	20		300	
	ii Above 35 sq. mm and upto 95 sq. mm	Metre	15	25		375	
	iii Above 95 sq. mm and upto 185 sq. mm	Metre	15	60		900	
	iv Above 185 sq. mm and upto 400 sq. mm	Metre	90	95		8550	
11.06	Supplying and making end termination with suitable size aluminium lugs including double compression glands of following sizes of 1.1. kv grade multicore aluminum conductor PVC insulated and PVC sheathed						
	i 3.5C X 400 Sq.mm	Each	8	1109		8872	
	ii 3.5C X 300 Sq.mm	Each	6	900		5400	
	iv 3.5C X 240 Sq.mm	Each	6	390		2340	
	v 3.5C X 35 Sq.mm	Each	4	225		900	
	vi 3.5C X 25 Sq.mm	Each	8	200		1600	
	vii 2 Core 10 Sq mm	Each	6	116		696	
	TOTAL SUB HEAD 11: LT CABLES AS MENTIONED ABOVE					772383	
12.00	SUB HEAD :12 EARTHING, SAFETY EQUIPMENTS AND MISC. ITEMS						

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
12.01	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Set	8	18000		144000
12.02	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Metre	10	7500		75000
12.03	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	Metre	30	700		21000
12.04	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	Metre	40	450		18000
12.05	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	Metre	30	1200		36000
12.06	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Metre	100	140		14000
12.07	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Metre	100	900		90000
12.08	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	Metre	30	900		27000
12.09	Providing and laying of copper strip of 50 mm X 5 mm for earthing and connection etc. as required.	Metre	20	1700		34000

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
12.10	Providing and laying of GI of 50 mm X 5 mm for earthing and connection etc. as required.	Metre	15	275		4125
12.11	Supplying and fixing Foam type 9 ltrs capacity fire extinguishers as approved by ISI complete as required.	Set	1	4000		4000
	TOTAL SUB HEAD 12: EARTHING, SAFETY EQUIPMENT AND MISC. ITEMS					467125
	SUB HEAD 13: OUT DOOR LIGHTING					
13.01	OUT DOOR LIGHTING					
13.02	Supply, installation, testing and commissioning of external post top lantern with Hot Dip Galvanised GI Pole (B Class) with following accessories and complete as required :					
i	5m high Bottom GI pipe Dia 140mm and upper dia GI Pipe 90mm dia GI pole as approved, adopting socket at top for fixture mentioned below, base plate 300 x 300 x 6mm and provision for mounting junction box etc. 1 set.					
ii	Discet Oval Post Top/drop down mounting with poly carbonate/PMMA diffuser duly wired with copper ballast, capacitor,ignitor and lamp holder for SON/MHE-27-70WATT					
iii	Suitable size 20A DP MS Control box with 2 no. incoming and outgoings terminals and 2 nos. tap-out terminal with 1 nos. 10A DP MCB complete 1 set.					
iv	Suitable length of PVC FLEXIBLE 50MM GI pipe for incoming cable					
v	Providing 400x400x1000mm deep 1:3:6 ratio cement concrete including excavation shuttering alignment of poles casting etc. including 100mm thick lean concrete shall be provided at the bottom					
	External Post Top lantern with pole with one set of light fixture as mentioned above	set	4	6808		27232
13.03	Road Lighting Panel					

BILL OF QUANTITY FOR ELECTRICAL WORKS OF 100 BEDDED HOSPITAL AT SHAHJAHANPUR,UP						
S.No.	Description.	Unit.	TOTAL QTY	Rate in Figures (in Rs.)	Rate in Words (in Rs.)	Amount (in Rs)
	Supply, installation, testing and commissioning of following outdoor type with canopy, M.V. cubicle type, powder coated totally enclosed, free standing type, dust, damp and vermin proof, MV Panel, bus bars, M.V. danger notice plate, interconnections with suitable capacity aluminum leads/solid aluminum strips/rods, connection of incoming and outgoing cables with thimbles and having following incoming and outgoing switchgears complete as required.					
	INCOMER:					
	1 No. 63 Amp 415 volts, FP MCCB with variable current setting, Extended rotary operating mechanism with door interlock with defeat feature and padlock facility. MCCB should be with spreader link and phase barriers.					
	1 Set of phase indicating lamp with HRC fuses					
	1 Set of timer & 63A TP contactor with neutral link (for street lights control) .					
	BUSBARS:					
	100 Amp TPN Aluminum busbars					
	OUTGOING:					
i	4 nos. 32 Amp TPN MCB with on /off indication					
ii	15 Nos. 16 Amp 415 volts, DP MCB & 2nos. 32A TPN MCB					
	Feeder Pillar as mention above	1	1	40000		40000
	TOTAL SUB HEAD 13: OUTDOOR LIGHTING					67232
	GRAND TOTAL FOR ALL ELECTRICAL WORKS					18140053

END OF BILL OF QUANTITY

BILL OF QUANTITIES (B.O.Q.) FOR HVAC WORKS FOR 100 BED HOSPITAL, SHAHJAHANPUR						
ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
The prices are to be quoted in the below mentioned form and shall include the supply, installation, testing & commissioning at site of all the equipments, ancillary materials as specified and all such items what so ever which may be required to fulfill the intent and purpose as laid down in the specifications and or the drawings.						
The tenderer shall quote rates in figures and in words under column 5&6 and extend amount to column 7						
1.0	Supplying, installation, testing and commissioning of 15 TR, programmable microprocessor based, Air-cooled Package Type DX units complete with condensing unit, scroll compressor, air-cooled condenser with fan and evaporator,interconnecting refrigerant piping with indoor and outdoor units,pre charge refrigerant necessary insulation. Microprocessor Based Control Panel should be capable for Heating, Cooling & Humidification controls and interlocking with control wiring etc. complete with following and as per specifications and requirement.					
	Indoor Unit-for OT at Fifth Floor					
	a) Fan Section and canvass connection (Double Skin Type) with mixing box and thermal break profile.					
	b) Backward curved Centrifugal Blower with Capacity of 3500 CFM and 125mm Static Pressure.					
	c) Cooling Coil Section/s with 15 TR cooling coil/s as per specifications.					
	d) Pre Filter with filter section as required.					

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
	e) Drain Pan and Drain Connection.					
	f) Drive motor, Drive arrangement guard etc.					
	g) Necessary vibration isolator and supporting arrangements.					
	h) Fresh air intake arrangement, necessary water drain and air purge valve wherever required etc.					
	i) Canvass connection ,necessary foundations, 2 nos pressure gauge, 2nos thermometer etc					
	j) double skin section for housing fine(microvee) and Hepa filters as required complete as per specifications					
	Outdoor Unit for above					
	Suitable Air Cooled Type Condenser with Aluminium Fins & Copper Tube Coils for above indoor unit.					
	b) Scroll Type Hermetically sealed Comperssors.					
	c) Suitable condenser fans for the condensing unit.					
	d) necessary hard drawn copper refrigerant piping per circuit with kinnifoam insulation along with clamps,supports,fittings such as valves,y-strainer, bends,tees,reducers ,expansion valves etc complete as per specifications and requirement	1	Nos.	1800403		1800403
2.0	Supplying, installation, testing and commissioning of Pan Type Humidifier made from minimum 2mm thick stainless steel sheet top closed and insulated with 50mm thick expended polysterene (T.F. Quality) complete with incommining MCB, humidstate and control wiring for OTs.					
2.1	Capacity : 6 kW	1	Nos.	39480		39480
3.0	WINTER/MONSOON HEATING ARRANGEMENT FOR OT AHU					

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
	Supply, installation, testing & commissioning of winter/monsoon heating/reheating arrangements fixed in ducts/ plenums complete with strip heaters, fixing frame work, insulators, fire protection insulation in duct, controls such as heating thermostats, humidistats etc. The heaters banks shall be controlled by independent thermostats/ humidistats through electro magnetic type contactors and safety thermostats/ geyserstats as specified complete with wiring for interconnections with 1.5 sq.mm copper conductor multi core armoured cable. The heater capacity shall be as per schedule of equipment and specifications, drawing etc.					
3.1	6 KW	1	Nos.	19805		19805
4.0	DUCTABLE SPLIT TYPE A/C					
	Supply, installation, testing and commissioning of ceiling mounted ductable split type air conditioners of following capacity complete with hermetically sealed compressor, fan section with fan & motor, air cooled condenser, filter section with filters,required no. of strip heaters with fixing arrangement in the plenum, interconnecting refrigerant piping with refrigerant & necessary electrical power cabling,control cabling, earthing, supports, controls,necessary safety measures and voltage stablizer & electrical panel,necessary fresh air intake arrangement,necessary GI drain piping of required size & required length from indoor unit to suitable drain location, complete in all respect as per specifications, drawing & technical schedule.					

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
4.1	17 TR capacity.	1	Nos.	445258		445258
	Extra Refrigerant Piping for 17 TR	25	Rmt.	1250		31250
	Extra drain piping	30	Rmt.	165		4950
5.0	SPLIT AIR CONDITIONERS					
	Supply , installation , testing and commisioning of HI wall split air conditioner comprising of the following.					
	a) Outdoor condensing Units					
	b) Indoor Evaporative Units					
	c) Interconnecting Refrigerant and drain piping with insulation wherever required, refrigerant and oil. The unit shall include refrigerant piping, power cabling and drain piping.					
	c) Safety and operational controls					
	e) Hiwall splits shall be suitable for single phase power supply and complete with suitable rating voltage stablizer.					
	f) Mounting arrangement and structural supports for outdoor unit are included.					
	g) The units should have 3 star rating from BEE.					
5.1	Capacity : 1.5 TR	3	Nos.	53189		159567
5.2	Capacity : 2.0 TR	1	Nos.	65092		65092
5.3	Extra Refrigerant Piping	40	Rmt.	350		14000
5.4	Extra drain piping	40	Rmt.	250		10000

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
6.0	Window Air Conditioner					
	Supply , installation , testing and commisioning of Window Acs complete with transformer, electrical cabling as required along with mounting arrangement and Voltage stablizer. Complete in all respect as per specifications. The units should have 3 star rating from BEE.					
	Capacity					
6.1	1.5 TR	3	Nos.	44967		134901
6.2	2.0 TR	5	Nos.	53132		265660
7.0	Propeller Fans					
	Supply, instalation, testing and commissioning of direct driven Propeller fan for exhaust air as shown in drawings. Each fan shall be complete with permanent split capacitor or shaded pole motor, mounting plate, accessories like wire guard, bird screen and fixed louvers for weather protection as required. Fan selection arrangement and Electrical characteristics shall be as follows:					
7.1	150 mm dia 900 RPM fan suitable for 220 +/- 10% volts, 50 Cycles, 1 Phase AC Supply	2	Nos	2700		5400
7.2	225 mm dia 900 RPM fan suitable for 220 +/- 10% volts, 50 Cycles, 1 Phase AC Supply	1	Nos	3200		3200
7.3	300 mm dia 900 RPM fan suitable for 220 +/- 10% volts, 50 Cycles, 1 Phase AC Supply	2	Nos	4500		9000

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
8.0	Axial Flow fans					
	Supply, installation, testing and commissioning of tube axial flow fans as shown in drawings, Each fan shall be direct driven.. Fan motor shall be suitable for 3 Phase, 415+/- 10% V, 50Hz AC supply					
8.1	Duty : Liftwell Pressurisation					
	Air Quantity : 5000 CFM	1	Nos.	47535		47535
	Static Pressure : 25 mm					
9.0	DUCTING					
9.1	GSS DUCTING					
	Supply, installation, testing and balancing of G.S.S ducting of following thickness including necessary supports, hangers, nut bolts, gaskets, splitter dampers, vanes canvas connections etc. complete as per specifications & drawings:					
9.1.1	24 gauge	120	Sqm.	750		90000
9.1.2	22 gauge	90	Sqm.	884		79560
9.1.3	20 gauge	30	Sqm.	1068		32040
9.2	ALUMINIUM DUCTING					

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
	Supply, fabrication, installation and testing of aluminium ducts in accordance with the approved shop floor drawing and specifications. Material should confirm to IS 737 latest edition.					
9.2.1	22 gauge	70	Sqm.	877		61390
9.2.2	20 gauge	60	Sqm.	1044		62640
9.2.3	18 gauge	10	Sqm	1314		13140
10.0	FIRE DAMPERS					
10.1	Supply, installation, testing and commissioning of motorized combined smoke & fire dampers made out of GI sheet of at least 120 minutes fire rating complete with GI damper of required size, smoke sensor, etc as per specifications and shop drawings.	1	Sqm	9510		9510
10.2	Actuator & Control panels	2	Nos.	11887		23774
11.0	CEILING DIFFUSERS					
11.1	Supply, Installation, testing and balancing of square/circular supply air diffusers of powder coated extruded aluminium construction with attached volume control dampers as per specs. and drawings.	3	Sqm	9982		29946

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
11.2	Supply, installation, testing and balancing of square/circular return air diffusers of powder coated extruded aluminium construction without volume control dampers.	3	Sqm	7368		22104
12.0	VOLUME CONTROL DAMPERS					
	Supply, installation and testing of volume control dampers of GI sheet, box type to be provided in ducts complete with suitable links, levers and quadrants for manual control of air volume and air balancing as per specifications and drawings.	2	Sqm	5706		11412
13.0	GRILLES					
	Supply, installation, testing and balancing of supply/return air grilles with/without volume control dampers of powder coated extruded aluminium construction suitable for installation in walls, false ceiling boxing etc as per specifications and drawings.					
13.1	Supply air grilles in single louvers with volume control dampers.	1	Sqm	9388		9388
13.2	Return air grilles in single louvers without volume control dampers.	1	Sqm	5169		5169
14.0	LAMINAR FLOW DIFFUSERS					

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
14.1	Providing & fixing of stainless steel plenum duly reinforced and made 100% air tight complete with 55% free perforated grilles(18 Gauge SS) at bottom for laminar flow in OTs. The plenum shall be insulated with 15 mm closed cell polyethylene insulation & shall be manufactured & installed by specialised agency as per designed to be approved by customer/Consultant					
	Size: 1200 x 600	12	Nos.	13272		159261
14.2	Providing & fixing of aluminium powder coated grilles with 60% face area. The grill shall be complete with damper & complete 25 mm thick aluminium filters	1	Sqm	8000		8000
15.0	DUCTING INSULATION					
15.1	Supply and fixing of 15 mm thick foil faced FR Closed Cell Chemically Crossed Linked Poly Ethylene Foam insulation (fire retardant type) density not less than 33 Kg/CuM, 'K' value not more than 0.028 Kcal/degC with adhesive tape etc. on ducts complete for supply air ducting as per the specifications and approved shop drawings.	350	Sqm	449		157150
16.0	DUCT ACOUSTIC LINING					
	Supply,application and fixing of resin bonded fibre glass hard board acoustic insulation in supply air ducting/plenum covered with tissue paper and perforated aluminium sheet as specified.	20	Sqm	699		13980

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
17.0	Supply, installation, testing, commissioning and balancing of fresh air opening comprising of powder coated extruded aluminium louvers with bird screen, projection with frame and volume control damper with lever mounting arrangement etc. as per specifications and drawings.	1	Sqm	8300		8300
18.0	AHU PANEL					
	Supply, installation, testing and commissioning of cubicle type totally enclosed wall/floor mounted free standing type, dust, damp and vermin proof for AHU made of 2mm thick CRCA sheet steel in compartmentalized design as per specification and drawings. These distribution boards shall be mounted on 50x50x6 MS angle frame work grouted to floor/walls of recessed. The rate includes the angle iron frame, support, painting, numbering, earthing etc. as required					
18.1	AHU STARTER PANEL					
	INCOMER :					
	1 No. 100 Amps 25 KA FP MCCB, 1 no of 0-125 amp ammeter with selector switch & CT's , 1 no. 0-500 volt voltmeter with selector switch & fuses , 1set of indicating lights (RYB).					
	Bus Bar					
	100 A TPN Aluminium bus bar 415V , 50 Hz.					

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
	OUTGOINGS :					
	1 set - 63 A, 415 V 15 KA FP MCCB, single phase preventor, suitable starter for 7.5/10 HP motor with thermal overload protection and spare NO-NC contacts for interlocking, ON-OFF indication lamps with push button for AHU motor as required.					
	1 set - 63 A, 415 V 15 KA FP MCCB, contactors of suitable rating for each bank , ON-OFF indication lamps for winter humidifier .					
	1 set - 63 A, 415 V 15 KA FP MCCB, contactors of suitable rating for each bank , ON-OFF indication lamps for winter heating.					
	1 set - 32 A, 415 V 15 KA FP MCCB , as spares.					
	1 set - 16 A, 415 V 10 KA FP MCCB .					
	Complete panel as above	1	Panel	90000		90000
19.0	CABLING					
	Supplying, laying, effecting proper connections, testing & commissioning of following size of 1.1 kv PVC insulated aluminium conducting armoured cables along with necessary cable tray as per IS 1554 Part- 1 laid on surface of wall/ceiling etc. & termination with brass compression glands as required.					
19.1	3 C X4 sq. mm. Cable	50	Rmt	88		4400
19.2	4 C X10 sq. mm. Cable	50	Rmt	133		6650

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
19.3	4 C X16 sq. mm. Cable	30	Rmt	147		4410
19.4	3.5 X35 sq.mm Cable	60	Rmt	325		19500
20.0	Supply & installation of following sizes of perforated MS cable trays including horizontal & vertical bends, reducers, tees, cross members and other accessories as required and duly supported from the ceiling/wall/floor with MS suspenders/supports and including painting etc. as required					
20.1	150 mm widthx50 mm deep x1.6 mmthickness	20	Rmt	300		6000
20.2	100 mm widthx50 mm deep x1.6 mmthickness	25	Rmt	180		4500
21.0	EARTHING					
21.1	Earth pits with GI earth plate of size 600mmx600mmx6mm thick including all accessories , down watering GI pipes 40mm dia and providing masonry enclosure with cover plate having interlocking arrangement and watering pipe etc. with charcoal of or coke and salt) complete as required	1	Set	7500		7500
21.2	Providing and fixing GI earth strip on walls/ trenches complete as per specifications and as required.					
21.2.1	25mm x 3mm	50	Rmt	150		7500

ITEM NO 1	DESCRIPTION OF ITEM 2	QTY. 3	UNIT 4	RATE IN FIGURES (in RS) 5	RATE IN WORDS (in RS) 6	AMOUNT (Rs.) 7
22.0	Providing and fixing earth wire of complete as per specifications as required.					
22.2	8 SWG wire	100	Rmt	45		4500
	TOTAL					4007225

BILL OF QUANTITY

MEDICAL GAS PIPELINE SYSTEM

Supply Installaton Testing and Commissioning of Medical Gas Pipeline System with One year Defect Liability Period for Shahjahanpur UP

SL. NO.	ITEM DESCRIPTION	UNIT	QTY	MARKET RATE (Rs.) (In Figure)	AMOUNT (Rs.)
1	Oxygen System :				
1.1	6+6 Bulk Cylinder Manifold for Oxygen complete with Middle Frame along with Chain for individual D-type cylinder, NRV and Tail Pipes as required with all accessories per technical specifications	Set	1	55,000	55,000.00
1.2	Fully Automatic Oxygen Control Panel with automatic switchover from one bank to other bank of cylinders complete as required with accessories as per NFPA-99as per technical specification	No.	1	385,000	385,000.00
1.3	Two-cylinder Emergency system for Oxygen Manifold complete as required with accessories as per technical specification	Set	1	24,500	24,500.00
1.4	Outlet with Adaptors as per NFPA 99, UL listed complete as per technical specification	Nos	94	5,695	535,330.00
1.5	Oxygen Flowmeter with Humidifier Bottle as per technical specification	Nos	94	1,320	124,080.00
1.6	H.P tubing flexible having antistatic core as per ISO with proper colour coded as per technical specification	mtr.	141	340	47,940.00
1.7	Oxygen Cylinder 'D' Type	Nos	14	14,000	196,000.00
2	Nitrous Oxide System :				
2.1	1+1 Bulk Cylinder Manifold for Nitrous Oxide complete with Middle Frame, NRV and Tail Pipes as required with all accessories per technical specifications	Set	1	12,400	12,400.00
2.2	Fully Automatic Nitrous Oxide Control Panel with automatic switchover from one bank to other bank of cylinders complete as per NFPA-99 as required with accessories as per specification	No.	1	385,000	385,000.00
2.3	Single-cylinder Emergency system for Nitrous Oxide complete as required with accessories as per specification	Set	1	6,200	6,200.00
2.4	Outlet with Adaptors as per NFPA 99, UL listed complete as per technical specification	Nos	7	5,695	39,865.00
2.5	H.P tubing flexible having antistatic core as per ISO with proper colour coded as per technical specification	mtr.	10.5	340	3,570.00
2.6	Nitrous Cylinder 'D' Type	Nos	3	18,000	54,000.00
3	Vacuum System :				
3.1	Vacuum duplex with 7v pump common 1000 litres Receiver, Filters, Electricals, etc. and bacteria filters complete as required with accessories as per specification Make-Ingersol-Rand/Anesta Iwata make. Bacterial Filter suitable for Vacuum Pump system complete as required with accessories as per specification	Set	1	840,000	840,000.00
3.2	Outlet with Adaptors as per NFPA 99, UL listed complete as per technical specification	Nos	94	5,695	535,330.00
3.3	H.P tubing flexible having antistatic core as per ISO with proper colour coded as per technical specification	Nos	141	340	47,940.00
3.4	Vacuum ward Unit as per technical specification		94	3,300	310,200.00
3.5	Theatre Suction Unit as per technical specification		2	11,500	23,000.00

4	Compressed Air System :				
4.1	Compressed Air System Consisting of Air Compressors duplex 36 cfm , Air Receiver Capacity 1000 ltrs, Air drier,After cooler, Moisture seperator and 4 stage filtration system including bacteria filters, Pressure Reducing Unit etc. complete as required with accessories as per specification Make- Ingersolrand/Anest Iwata 4 Stage Breathing Air Filter for 36 CFM as per ISO 8573-1 complete as required with accessories as per specification. Auto Drain System for Air receivers complete as required with accessories as per specification	Set	1	740,000	740,000.00
4.2	Outlet with Adaptors as per NFPA 99, UL listed complete as per technical specification	Nos	36	5,695	205,020.00
4.3	H.P tubing flexible having antistatic core as per ISO with proper colour coded as per technical specification	Nos	54	340	18,360.00
5	Distribution Copper Piping having copper pipes as per BS EN 1057 standard with 3rd party inspection from Lloyds' complete as required with accessories as per specification				
5.1	Cu Pipe 42 mm Od x 1.2 mm thick	Mtr.	30	2,600	78,000.00
5.2	Cu Pipe 28 mm Od x 0.9 mm thick	Mtr.	380	1,000	380,000.00
5.3	Cu Pipe 22 mm Od x 0.9 mm thick	Mtr.	541	864	467,424.00
5.4	Cu Pipe 15 mm Od x 0.9 mm thick	Mtr.	461	579	266,919.00
5.5	Cu Pipe 12 mm Od x 0.7 mm thick	Mtr.	350	230	80,500.00
6	Isolation Ball Valve (Factory-Degreased) with Brass Adaptor complete as required with accessories as per specification				
6.1	15 MM.	No.	1	1,630	1,630.00
6.2	22 MM.	No.	2	2,520	5,040.00
6.3	28 MM	No.	3	3,610	10,830.00
6.4	42 MM	No.	2	6,830	13,660.00
7	Valve Box complete as required with accessories as per specification				
7.1	2 services	No.	3	10,000	30,000.00
7.2	3 services	No.	4	11,500	46,000.00
7.3	4 services	No.	2	13,421	26,842.00
8	Alarm complete as required with accessories as per specification				
8.1	Master Alarm as per NFPA-99 (Imported) as per technical specification	No.	1	250,000	250,000.00
8.2	Area Alarm (Digital)as per NFPA-99 (Imported) as per technical specification	No.			
8.3	2 services	No.	3	163,200	489,600.00
8.4	3 services	No.	4	175,000	700,000.00
8.4	4 services	No.	2	190,000	380,000.00
9	Electrical Control Panel as per technical specification	lot	1	185,000	185,000.00
TOTAL Rs.					8,000,180.00

BILL OF QUANTITY

OPERATION THEATRE (Major)

Supply Installaton Testing and Commissioning of Operation Theatre (Major) and One year defect liability period for Shahjahanpur, UP

SL. NO.	ITEM DESCRIPTION	UNIT	QTY	MARKET RATE (Rs.) (In Figure)	Rate (In Words)	AMOUNT (Rs.)
1	Ceiling System	lot	1	375000		375000
	40 mm thick Double skin totally flush Walkable false ceiling panels made with 0.8 mm thick Galvanised Powder coated Skin Pass (GPSP) sheet on both side with 36 ± 2 kg/m³ density PUF as infill, with suitable Ceiling grid and supporting hardware. Joints shall be sealed with cleanroom compatible silicon sealant. Panel will be class "0", fire rated.Factory made cutout -12 Nos. (Approx.) in the ceiling panel for light fixture					
2	Wall with Corner Coving	lot	1	150,000		150000
	Epoxy painting and Extruded aluminium powder coated/Anodized clip on type covings for the entire wall to wall and wall to ceiling. R-70 , 3D internal/external corner coves					
3	Swing door	Nos	1	195,000		195000
	44 mm thick doors made with Poly Urethene painted 0.8mm thick GPSP sheets on both sides with PUF as infill, 1.2 mm thick GPSP powder coated door frames totally flush with the wall panels, hardware like push plates, handles, door closure, double glazed view glass of std size, Stainless Steel Ball Bearing butt hinges and provision for concealed automatic door bottom Drop seal etc. Supply & Installation of double glazed view panels with flush design, with 6mm thick float glass fixed in double panel with necessary arrangements.					
4	Peripheral Light	Nos	12	15,000		180000
	Peripheral lights and clean room luminaries fitted in the frame should be 12 in numbers for each OT. The fluorescent lamps 54 W 16mm Ø- 3 nos with highly spectacular anodized Aluminum reflectors and optical antiglare system for adjustable light distribution. Details as per technical specification.					

5	OT Control Panel	Nos	1	234,000	234000
	Tile based Membrane type Operation Theatre Surgeon Control Panel (6 service Tiles) consisting of display like Real time, Count down time, lighting control through dimmer, Telephone, Gas pressure set point, Alarm, Room Temperature and Relative Humidity.mounted flush in the theatre wall with Distribution Board complete with all accessories etc. (size 650mm x 650mm). Lighting Control along with i. Day time clock -Digital ii. Elapsed Time Clock -Digital				
6	X-Ray Film Viewer	Nos	1	62,300	62300
	The two (2)-plate viewing with 3 pieces of high frequency fluorescent lamps X-Ray Viewing Screen should be designed to provide flicker free luminance for clear film viewing. Each plate should be able to illuminate films upto 14"x17" size and complete as required with all accessories as per technical specification.				
7	Writing Board	Nos	1	17,100	17100
	Writing Board as operating list Board of size-1000x700x60deep should be made of ceramic having magnetic properties and should be flushed to the wall of the operating Room and complete as required with all accessories as per technical specification..				
8	Built-in Storage Unit	Nos	1	61,500	61500
	Storage Unit should be made out of 1.50 mm thick AISI-304 Stainless steel. The storage unit should be divided 2 or more parts and each part should have individual glass doors with high quality locking system and complete as required with all accessories as per technical specification...				
9	Distribution Board and Electrical wiring, conduiting with fixture inside the Operation theatre	lot	1	180000	180000
	All high voltage equipment should be installed in a separate enclosure. AndLaying of PVC conduits, Modular Switch Boxes, Modular Switches-sockets, Power and Light wiring including Earthing wire for all the lighting controls, Pendant and other equipment fixtures and fittings inside the theatre Wiring with low leakage current wires of FRLS wires should be as per requirements and complete as required with all accessories as per technical specification.				

10	Operation Theatre Flooring (Antistatic Conductive Flooring)	lot	1	199000		199000
	A floor should be provided, flat to within a tolerance of +/- 3mm over any 3-metre area. Onto this sub floor, a self-leveling compound should be laid prior to laying of the floor finish and complete as required with all accessories as per technical specification.					
11	Ceiling Mounted Pendant Anaesthetic Pendant (Single Arm)	Nos	1	175,000		175000
	Supply installation and commissioning of Single Arm Movable Type with 1000 mm long arm with Horizontal Movement and complete as required with all accessories as per technical specification. .					
12	Ceiling Mounted Surgeon Pendant-Double Arm Pendant	Nos.	1	220,000		220000
	Supply installation and commissioning of Double arm Surgeon Pendant complete as required with all accessories as per technical specification. .					
13	Ceiling OT Light	Nos	1	1,125,000		1125000
	Dual Dome LED Surgical Lighting System with one dedicated Spring-Arm Suspension and complete as required with all accessories as per technical specification.					
In words Rupees					Total Rs.	3173900

BILL OF QUANTITY

OPERATION THEATRE (Minor)

Supply Installaton Testing and Commissioning of Operation Theatre and One year defect liability period for Shahjahanpur, UP

SL. NO.	ITEM DESCRIPTION	UNIT	QTY	MARKET RATE (Rs.) (In Figure)	AMOUNT (Rs.)
1	Ceiling System	lot	1	375000	375000
	40 mm thick Double skin totally flush Walkable false ceiling panels made with 0.8 mm thick Galvanised Powder coated Skin Pass (GPSP) sheet on both side with 36 ± 2 kg/m ³ density PUF as infill, with suitable Ceiling grid and supporting hardware. Joints shall be sealed with cleanroom compatible silicon sealant. Panel will be class "0", fire rated.Factory made cutout -12 Nos. (Approx.) in the ceiling panel for light fixture				
2	Wall with Corner Coving	lot	1	105,000	105000
	PU painting and Extruded aluminium powder coated/Anodized clip on type covings for the entire wall to wall and wall to ceiling. R-70 , 3D internal/external corner coves				
3	Swing door	Nos	1	195,000	195000
	44 mm thick doors made with Poly Urethene painted 0.8mm thick GPSP sheets on both sides with PUF as infill, 1.2 mm thick GPSP powder coated door frames totally flush with the wall panels, hardware like push plates, handles, door closure, double glazed view glass of std size, Stainless Steel Ball Bearing butt hinges and provision for concealed automatic door bottom Drop seal etc. Supply & Installation of double glazed view panels with flush design, with 6mm thick float glass fixed in double panel with necessary arrangements.				
4	Peripheral Light	Nos	12	15,000	180000
	Peripheral lights and clean room luminaries fitted in the frame should be 12 in numbers for each OT. The fluoresent lamps 54 W 16mm Ø- 3 nos with highly spectacular anodized Aluminum reflectors and optical antiglare system for adjustable light distribution. Details as per technical specification.				

5	X-Ray Film Viewer	Nos	1	62,300		62300
	The two (2)-plate viewing with 3 pieces of high frequency fluorescent lamps X-Ray Viewing Screen should be designed to provide flicker free luminance for clear film viewing. Each plate should be able to illuminate films upto 14"x17" size and complete as required with all accessories as per technical specification.					
6	Built-in Storage Unit	Nos	1	61,500		61500
	Storage Unit should be made out of 1.50 mm thick AISI-304 Stainless steel. The storage unit should be divided 2 or more parts and each part should have individual glass doors with high quality locking system and complete as required with all accessories as per technical specification...					
7	Distribution Board and Electrical wiring, conduiting with fixture inside the Operation theatre	lot	1	125000		125000
	Electrical Distribution Board along with all high voltage equipment should be installed in a separate enclosure. AndLaying of PVC conduits, Modular Switch Boxes, Modular Switches-sockets, Power and Light wiring including Earthing wire for all the lighting controls and other equipment fixtures and fittings inside the theatre Wiring with low leakage current wires of FRLS wires should be as per requirements and complete as required with all accessories as per technical specification.					
8	Operation Theatre Flooring (Antistatic Conductive Flooring)	lot	1	199000		199000
	A floor should be provided, flat to within a tolerance of +/- 3mm over any 3-metre area. Onto this sub floor, a self-leveling compound should be laid prior to lying of the floor finish and complete as required with all accessories as per technical specification.					
9	Ceiling OT Light	Nos	1	525,000		525000
	Surgical Lighting System with the dual reflector complete as required with all accessories as per technical specification.					
In words Rupees					Total Rs.	1827800
					Major OT	3173900
					Minor OT	1827800
					Total	5001700