

## DETAILED ESTIMATE FOR CONSTRUCTION/UPGRADATION OF HDU UNIT

S.NO.		DESCRIPTION OF ITEM	QTY	UNIT	RATE	AMOUNT
		<b>ANTI STATIC VINAYL FLOORING</b>				
1	45.9	Supply , Installation ,testing ,commissioning of 2 mm thick roll from antistatic Conductive seamless Vinyl flooring with perfectly curved flash-covings resistant to mechanical stress and dynamic loads and having conductive backing to ensure optima; and consistent conductive properties $5 \times 10^4 < R_t \leq 10^6$ Ohm (En 1081). it should comply with EN 649. All joint should be washable. Residual Indentation app. 0.03 mm, It should cater wheel test qualified, Dimensional stability should be $\leq 0.40\%$ . Static Electrical charge should be $< 2Kv$ , Impact sound reduction should be +4Db, It should be good resistant to scratch & shall confirm slip resistance class R9 as per Din 51130 and fire rating Bft-S1 as per EN13501-1. It should not allow growth of fungi & bacteria. It should have wear resistance group P (K5 rating) and should be PUR treated to get highest stain resistance to hospital chemicals as per DIN 423/DIN 51958 . It conforms to the requirement standard for healthcare NFPA99.				
		The AEROBOND adhesive to be used only . welding rod should be 4 mm thickness and color must be same as of the only vinyl flooring. The floor finish should terminate at the room perimeter passing over a concealed cove former and continuing up the wall for 100 mm . All joints should be welded and the plastic wall finish should overlap the floor coving by 25 mm , to provide a continuous sealed surface . The PVC Flooring should be laid on copper grid for providing antistatic electro-statically conductive flooring .				
		The conductive copper grid laid should supported by liquid epoxy compound allowed to set as a uniform and level surface . The final surface should be non corrosive to Biological fluids & detergents. Cu strip for conductive flooring should have thickness of 0.45 mm, width 30 mm & grid 1 mtr X 1mtr should be form under conductive flooring. It should provide proper earthing to static. The work should be executed as per the direction of engineer in charge.				
		(Length + Coving 0.25 cm either side)	111.52	SQM	2600.00	289963
	45.16.1	<b>OXYGEN GAS MANIFOLD</b>				
		(2+2 size of oxygen manifold complete with 4 nos. pig tail pipes CE marked with 4 digit notified no./UI listed.) Supply Installation Testing and Commissioning of Oxygen Manifold system shall comprise of extendable bank's of 2+2 cylinders. High pressure copper pipes of size 1/2" ID X 15 swg & High pressure brass fitting made of High pressure copper pipes of size 1/2" ID X 15 Swg & High pressure copper tail pipes with bulb nose RH threads shall be used to connect the gas				
		cylinders to the header assemblies with non return valves. high pressure flexible tail pipes shall be made of copper pipe of ID 1/4" X 15 swg the manifold shall be tested hydraulically at 225 Kg/cm <sup>2</sup> pressure. it shall be degreased for oxygen service and shall be supplied duly wrapped in a polythene bag.	1	Set	12500.00	12500
	45.16.11	<b>MEDICAL GAS AREA ALARM PANEL</b>				
		CE Marked with 4 digit notified body No.				
		The area alarm panels (AAP) will be located for monitoring				
		(a) Each O.T. and path lab				
		Display Box				
		Box 18 gauge powder coated.				
		Box size:- LxHxD 12"x8"x2 1/2"				
		Test function is provided in the Line Pressure Alarm system to test the audio-visual indicators. On pressing the Test Button, all the emergency indicators i.e. the High and the Low indicators start glowing along with a beep alarm. This test is performed for 5 seconds and after that it comes back to its previous position.				
		Mute Function is provided for switching off the beep alarm whenever it blows. The system is provided with a timer, which allows the beep alarm to restart after 10 minutes of pressing the mute button.				
		All AAP's will be self-contained low voltage (Less than 24 V) with its own transformer mounted in a recessed box painted in distinct colours for various gases. 220 V, 50 Hz A.C supply will be made available at each AAP.	1	Set	15000.00	15000
		Supply installation testing and commissioning of Isolation Valve. The Valve shall be 3 piece ball-type designs with a bronze body and chrome plated brass ball for sizes 1/2" to 3" and seats shall be of Teflon (TFE) . A blow-out proof stem shall be used and the valve shall have a maximum rating of 600 psi. It shall be operated by a lever-type handle requiring only a quarter turn from a fully open position to a fully closed position.	1	Set	750.00	750

1		12.46 Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts and bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of 10mm thick plaster of Paris (gypsum anhydrous) sheet to ceiling section and perimeter channels with the help of dry wall screws of size 3.5x25mm at 230mm interval including jointing and finishing to a flush finish of tapered and square edges of POP board with jointing compound (POP paste) including the cost of making openings for light fittings, grills,				
		12.46.1 Flat surfaces				
		1 x 6 x 11.50	69	sqm	676	46644
2		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) :				
		21.1.1.3 Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	120	kg	383	45960
3		21.3 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) :				
		21.3.2 With float glass panes of 5.50 mm thickness				
		2 x 8 x 1.76 x 1.76	49.5616	sqm	932	46191.4112
4		31.4.1 Fixing on wall/Ceiling on wooden round block with 'J' hook/Anchor hole fastener fixed in Ceiling and other necessary materials including connections etc. and as required. 31.4.1.1 1x28w	10	each	2463	24630
5	28.4	1600 mm X 450mm X1650 mm back height & 1200 mm and front height. Providing,fixing, supplying, installation, testing and commissioning of scrub sink with the following • Compact surgical scrub sink should be designed for use in OT complex for pre procedural scrub up. (Double sink combination as suitable)specification:- • Each fixture should be fabricated from heavy gauge type 304 stainless steel (minimum thickness 1.5mm) and should be seamless welded construction, polished to a satin finish • The scrub sink should be provided with a front access panel which should be easily removed for access to the water controlled valve, waste connections, stoppers and strainers. • Hands free operation should include infra red sensors with programmable adjustment. • Thermostatic mixing, valve control should be located behind the access panel and maintain constant water temperature. • Timing should be adjustable to meet individual application requirements. •	1	each	86000	86000
6		<b>46.11 SPLT AC installing</b> Supply and installation of the 3 star rating 1.8 Tr split type air-conditioning units with nitril rubber insulated refrigerant copper piping up to 3.0 mtrs. along with control electrical connecting cable 4mtrs. (in between indoor and condensing unit) including installation of 20 mm HDPE PVC drain pipe of 5 mtrs. Length and MS stand for outdoor condensing units. Necessary opening on the wall may be done for drawing copper tubing and cabling finishing with cement plaster etc. Specification of Hi wall type Split Air conditioning unit , Power supply: 220V/ SP /50Hz for outdoor unit and indoor unit ,Reciprocating/Scroll ,Indoor Noise Level: dBA50 to 40 ,Nominal Airflow: 810 to 680 (CFM) Control: Cordless Remote-Microprocessor Control ,Condenser coil: In				
		46.11 .1 1.5 TR Ster Rating 3 Ster	2	no	59142.00	118284
	45.16.	MEDICAL GAS AREA ALARM PANEL				

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		All AAP's will be self-contained low voltage (Less than 24 V) with its own transformer mounted in a recessed box painted in distinct colours for various gases. 220 V, 50 Hz A.C supply will be made available at each AAP.	1	each	15000	15000
9	45.16.12	Copper pipe solid drawn, seamless, deoxidised non- arsenic, half hard, tempered and degressed material conforming to new european standard EN 13348:2008. Fittings are made of Cu suitable for steam of working pressure 17 Bar.				
	45.16.12.1	(a) 12 mm (Thickness 0.9mm)	40	mtr	250	10000
	45.16.12.2	(b) 15 mm (Thickness 0.9mm)	70	mtr	380	26600
		(c) 22 mm (Thickness 0.9mm)	200	mtr	450	90000
10		Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge				
		15.6.3 In cement mortar				
		1 x 1.20 x 2.10 x 0.10	0.252	cum	487.00	122.724
		1 x 6 x 3.10 x 0.20	3.72	cum	487.00	1811.64
11		Brick work with well brunt open bhatta, bricks, crushing strength not less than 25kg / cm2 and water absorption not more than 20% in superstructure above plinth level and up to floor two level i/c curing etc complete. 6.6.2 Cement Mortar 1:6 (1 cement : 6 sand				
		2 x 3.10 x 3.10 x 0.10	1.922	cum	4350	8360.7
12		12 mm cement plaster of mix :				
		13.1.2 1:6 (1 cement : 6 sand)				
		2 x 2 x 3.10 x 3.10	38.44	sqm	110	4228.4
13		13.45 Distempering with dry distemper of approved brand and manufacture (two or more coats) of required shade on new work, over and including water thinnable priming coat to give an even shade.				
		2x 2 x 3.10 x 3.10	38.44	sqm	46.9	1802.836
14		11.46 providing and fixing ceramic glazed tiles 300X450 mm or more (having thickness 6 to 7 mm) of 1st quality conforming to IS : 15622 of approved make in all Colours shades, Except burgundy, Bottle green, Black, laid on 12mm thick bed of Cement Mortar 1:3 (1 Cement : 3 sand) prepared same day when mortar is still green i.e. within 6 hours and jointed with grey cement slurry @3.3 kg per sqm including pointing the joints with white cement and matching pigments etc., complete.				
		3 x 3.10 x 2.10	19.53	sqm	716	13983.48
16		9.5 Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws excluding, panelling/glazing which will be paid for separately, all complete as per direction of Engineer-in-charge.				
		9.5.1 Second class teak wood				
		9.5.1.2 30 mm thick shutters				
		2 x 2.40 x 0.75	3.6			
		2 x 1.50 x 0.75	2.25			
		5 x 0.75 x 0.75	2.8125			
			8.6625	sqm	2448	21205.8
17		9.6 Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick :				
		9.6.3.2 Decorative plywood one side decorative veneer and commercial veneer on other face (Type 1) conforming to IS 1328 BWR Type				
		2 x 2.40 x 0.75	3.6			
		2 x 1.50 x 0.75	2.25			
		5 x 0.75 x 0.75	2.8125			

			8.6625	sqm	1816	15731.1
		<b>Total =</b>				<b>894768.916</b>
		<b>Deduction 10% SOR Rate</b>				<b>89476.89165</b>
		<b>Total Amount For SOR ITEMS</b>				<b>805292.02</b>
7	non Sor	<p>Bed Head Units shall be constructed from aluminum extrusion with round and smooth shape corners and shall be 1200mm in length per each patient. The unit shall have three physically separated compartments (for low and extra low voltage electrical services and for medical gas services). The unit shall provide a safe, efficient means of delivering services to patients/staff in both general and special care applications. The aluminum extrusion unit shall have an electrostatic powder paint finish on all external surfaces. The minimum mounting height of the unit shall be 1.7 meters from the finished floor level. All removable covers of the unit shall be earthed. Electric power feedings shall be 240V/50Hz, Cost Of elect. Socket &amp; Gas Connection etc.</p> <p>The unit shall consist of following services for each patient,</p> <ol style="list-style-type: none"> <li>1. 1 no of Oxygen outlet, ISO 9170:1990 and BS 5682:1992 compatible</li> <li>2. 1 no of Medical Vacuum outlet, ISO 9170:1990 and BS5682:1992 compatible</li> <li>3. Provision for 3 nos of modular 16A standard electrical switch socket</li> <li>4. Provision for 1 no of RJ11 telephone and RJ45 data socket</li> <li>5. Provision for 1 no of 11 Watt CFL /LED light fittings provision.</li> <li>6. Provision for 1 no monitor rack.</li> <li>7. PROV for 1 no of Nurse call provision .</li> <li>8. Provision for 1 no IV stand.</li> </ol> <p>The standard range of Patient Bed Head Unit shall be "CE" marked under the Medical Devices Directive 93/42/EEC with approval body number.</p>	7	each	11783	82481
	non Sor	Ward Vacuum unit				
8	non Sor	Supply installation testing and commissioning of Ward Vacuum unite with Regulator, 600ml jar and As per HTM02 -01/ 2022 / NFPA99 & CE indian Certified is designed for minimum servicing and high efficiency . Regulator body which houses an ON/OFF knob , regulator knob, vaccume guage guaranteed in mbar.Consisting of one no. Suction Regulator connected with 600ml polycarbonate transperent Jar .The jar and the lid are autoclavable and unbreakable and is fitted with an overflow safety trap	5	each	1364	6820
		<b>Total Non SOR items</b>				<b>89301</b>
		<b>Total</b>				<b>894593</b>
		<b>Add 12% GST</b>				<b>107351.16</b>
		<b>Grand Total</b>				<b>1001944</b>
		<b>Say Amount</b>				<b>10.00 lac</b>