

<u>GENERAL ABSTRACT</u>		
UPGRADATION OF CHACHA NEHRU NRC TO SMTU IN INDORE MEDICAL COLLAGE INDOER (M.P.)		
HEAD		
S.NO	DESCRIPTION	AMOUNT
A	CIVIL WORK	
1	CIVIL WORK	1323303.97
2	WATER SUPPLY	42638.00
3	SEWERAGE AND DRAINAGE	129948.00
4	ELECTRIFICATION (LS)	651625.00
		2147514.97
	Less 10% As per PIU Circular	214751.50
	Total	1932763.48
B	MGPS	225929.00
C	BED HEAD UNIT & SCRUB SINK AND AIR CONDITIONING	505212.00
	Total	2663904.48
	12% GST	319668.54
		2983573.01
	Sub Engineer(Civil)	Assistant Engineer
	NHM	NHM
	Executive Engineer	
	NHM	

ESTIMATE FOR CIVIL WORK FOR UPGRADATION OF CHACHA NEHRU NRC TO SMTU IN INDORE

BASED ON PWD BUILDING WORK SOR IN FORCE 01.08 2014

S. No	SOR ITEM	PARTICULARS OF ITEM	NO	L	B	D/H	Quantity	unit	Rate	Amount
A		Dismantaling Work								
1	15.14	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :								
	15.14.1	Of area 3 sq. metres and below	4				1	each	85.00	85.00
2	15.6	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								
			3	6.35	0.1	3.4	6.477			
			1	2	0.1	3.40	0.68			
							7.157	Cum.	487.00	3485.46
B		Brick Work								
3	6.12	Providing half brick masonry with well burnt chimney bricks in bull patent trench klin manufactured by ghol process crushing strength not less than 40 kg /cm2 and water absorption not more than 15% in superstructure above plinth level and up to floor two level								
	6.12.1	Cement mortar 1:3 (1 cement : 3 sand)								
		For HDU room	2	6.15		3.60	44.28			
			3	2.7		3.60	29.16			
			2	4.2		4.10	34.44			
			1	1		4.10	4.1			
		Dr. Romm / Store Room	1	2.65		4.10	10.865			
		DU	1	1.2		2.10	2.52			
			1	0.9		2.10	1.89			
		toilet portion	2	1.2		2.40	5.76			
		Deduction of Door D	-1	1.5		2.40	-3.6			
		D1	-1	1.2		2.40	-2.88			
		D2	-1	1		2.10	-2.1			
		D3	-2	0.9		2.10	-3.78			
		D4	-4	0.8		2.10	-6.72			

S. No	SOR ITEM	PARTICULARS OF ITEM	NO	L	B	D/H	Quantity	unit	Rate	Amount
		Window W	-4	1.2		1.50	-7.2			
		V	-4	0.6		0.45	-1.08			
							105.655	Sqm.	697.00	73641.54
C		Plaster Work								
4	13.1	12 mm cement plaster of mix :								
	13.1.2	1:6 (1 cement : 6 sand)								
		On Inner Wall HDU Unit	2	6.65		4.10	54.53			
			2	6.25		4.10	51.25			
		Waiting Area	2	6.25		4.10	51.25			
			2	2		4.10	16.4			
		Toilet Portion	6	1.2		2.40	17.28			
			2	4		2.40	19.2			
		Front of toilet	2	4.2		4.10	34.44			
		Store room / Dr. Room	4	2.65		4.10	43.46			
			2	2.1		4.10	17.22			
			2	2		4.10	16.4			
		DU	2	1.2		2.10	5.04			
			2	1		2.10	4.2			
		Deduction of Door D	-1	1.5		2.40	-3.6			
		D1	-1	1.2		2.40	-2.88			
		D2	-1	1		2.10	-2.1			
		D3	-2	0.9		2.10	-3.78			
		D4	-4	0.8		2.10	-6.72			
		Window W	-4	1.2		1.50	-7.2			
		V	-4	0.6		0.45	-1.08			
							303.31	Sqm.	110.00	33364.10
5	13.2	15 mm cement plaster on the rough side of single or half brick								
	13.2.2	1:6 (1 cement : 6 sand)								
		Outer plaster	2	2.8		4.10	22.96	Sqm.	128.00	2938.88
D		FLOORING (Marble)								
6	11.76	Providing Epoxy flooring self levelling type on strong base in desired colour/design as approved by engineer in charge. Resin for epoxy is to be of floor grade type i/c appropriate hardner and filler material. with 5 year defect liability period (This item is to be used only for operation theaters in hospitals)								
	11.76.2	2 mm thick								
		HDU WARD	1	6.65	6.25		41.56			

S. No	SOR ITEM	PARTICULARS OF ITEM	NO	L	B	D/H	Quantity	unit	Rate	Amount
						TOTAL=	41.56	sqm	1825.00	75852.00
7	11.92	Providing and laying Vitrified floor tiles full body Design homogeneous body matt/rustic finish in in different sizes with water absorption less than 0.05% and confirming to IS:15622 of approved make in all color and shades , 1st quality / premium in flooring ,laid on 20 mm thick cement mortar 1:4 (1 cement , 4 sand) including grouting the joints with white cement and matching pigments etc complete for indoors								
	11.92.1	In light colour and shade as ivory.,beige,blanco grey etc								
	(c)	Size 600 x600 mm Thickness 15-16 mm (for heavy duty indoor areas of non residential buildings only such as school, library , hostels , library hospitals offices etc								
		Staff toilet	1	1.60	1.20		1.92			
		Passaint Toilet	2	1.20	1.20		2.88			
		Store Room / Dirt Utility	1	2.00	2.65		5.30			
		Dr. room	1	2.10	2.65		5.57			
		WAITING AREA	1	2.00	6.25		12.50			
		FRONT OF TOILET	1	4.30	1.00		4.30			
							15.67	sqm	1412.00	22126.00
8	11.53	Providing and laying vitrified floor tiles in different sizes 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 sand) including grouting the joints with white cement and matching pigments etc., complete.								
	11.53.2	Size of Tile 600x600x9-10 mm								
		Staff toilet	1	5.6		2.1	11.76			
		Passaint Toilet	2	4.8		2.1	20.16			
		Store Room / Dirt Utility	1	11.5		2.1	24.15			
		Dr. room	1	9.5		2.1	19.95			
		WAITING AREA	1	16.5		1.8	29.70			
		FRONT OF TOILET	1	10.6		1.8	19.08			
							124.80	sqm	1102.00	137530.00

S. No	SOR ITEM	PARTICULARS OF ITEM	NO	L	B	D/H	Quantity	unit	Rate	Amount
9	9.34	Providing and fixing skirting of Pre-laminated with (one side decorative and other side balancing lamination) flat pressed, 3 layer or graded particle board (medium density) Grade I, Type II, IS :12823 marked, with necessary fixing arrangements and screws including drilling necessary holes for rawl plugs etc. and priming coat on unexposed surface complete :								
	9.34.1	18 mm thick								
		UNIT HDU OF WALL SIDE	2	6.65	2.1		27.93			
			2	6.25	2.1		26.25			
							54.18	sqm	1626	88097.00
	9.34.2	25 mm thick					0.00			
		NURSHING COUNTER	2	2.1	1.2		5.04			
			4	0.6	0.9		2.16			
							115.56	sqm	1741	201190.00
10	11.22	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 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 wherever required etc. complete at all levels. samples approved by Engineer-in-charge.								
	11.22.2	Granite of any colour and shade								
		NURSHING COUNTER	1	2.00	0.60		1.20			
			1	2.00	0.30		0.60			
			1	2.00	1.20		2.40			
			1	0.90	1.20		1.08			
		Window sill SIDE FACE WALL								
		W	4	5.40	0.12		2.59			
							7.87	sqm	3322.00	26144.00

S. No	SOR ITEM	PARTICULARS OF ITEM	NO	L	B	D/H	Quantity	unit	Rate	Amount
11	11.38	Extra for providing opening of required size and 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 moulding, rubbing and polishing of cut edges etc. complete.								
		Wash basin	1	1			1.00	no	232.00	232.00
E		Door Fram								
12	11.86	Providing and fixing 16mm thick gang saw cut mirror polished premoulded and prepolished machine cut Granite of approved shade, colour and texture of Granite Door frame. in cement mortar 1:3 (1 cement :3 sand) including pointing with an admixture of pigment to match the shade including fixing of granite stone door frame with epoxy resin based adhesive including secured to the backing by means of cramps, drilling of hole with rawl plugs and screws 75mm long cleaning etc. complete. Including rubbing, curing, moulding and polishing edges to give high glossy finish and drilling of hole for fixing stainless steel hinges, aldrop, towerbolt etc complete at all levels as per instruction of Engineer-in-charge.								
	11.86.1	Granit Door frame for 100mm thick wall Thickness.								
		Door D	1	.5+2.4+2.4)			6.3			
		D1	1	.2+2.4+2.4)			6.00			
		D2	1	1+2.1+2.1)			5.20			
		D3	2	.9+2.1+2.1)			5.10			
		D4	4	(0.80+2.10+2.10)			5.00			
							27.60	Rmtr	1122.00	30967.00
F		DOOR SHUTTER								
13	9.18	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters of such as duro board, century or equivalent make.								

S. No	SOR ITEM	PARTICULARS OF ITEM	NO	L	B	D/H	Quantity	unit	Rate	Amount
	9.18.2	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.								
		D	1	1.50		2.40	3.60			
		D1	1	1.20		2.40	2.88			
		D2	1	1.00		2.10	2.10			
		D3	2	0.90		2.10	3.78			
		D4	4	0.80		2.10	6.72			
							8.58	sqm	3660.00	31403.00
14	21.5	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								
	21.5.1	With stainless steel cover plate - minimum 1.25 mm thickness								
		D & D1	2				2.00	each	2012	4024.00
15	9.21	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).								
		D	1	1.50		2.40	3.60			
		D1	1	1.20		2.40	2.88			
							6.48	sqm	401.00	2598.00
16	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.								
		D	1				1.00			
		D1	1				1.00			
							2.00	no	167.00	334.00

S. No	SOR ITEM	PARTICULARS OF ITEM	NO	L	B	D/H	Quantity	unit	Rate	Amount
G		FITTINGS								
17	9.101	Providing and fixing chromium plated brass sliding door bolts ISI marked with nuts and screws etc complete.								
	9.101.2	250x16mm								
		For Doors	14				14			
							14	no	245.00	3430.00
18	9.102	Providing and fixing chromium plated brass tower bolts ISI marked with nuts and screws etc complete.								
	9.102.2	250x10mm								
		For Doors	4				4			
							4	no	164.00	656.00
19	9.113	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:								
	9.113.1	125 mm								
		For Doors	17				17			
							17	no	75.00	1275.00
20	9.76	Providing and fixing Stainless steel hanging type floor door stopper with necessary screws, etc. complete.								
		For Doors	8				8			
							8	no	103.00	824.00
21	9.41	Providing and fixing curtain rods of 1.25 mm thick chromium plated brass plate, with two chromium plated brass brackets fixed with C.P. brass screws and wooden plugs, etc., wherever necessary complete :								
	9.41.2	20 mm dia.								
		D	1	1.6			1.60			
		D1	1	1.4			1.40			
		W	4	1.40			5.60			
		UNIT OF HDU PARTITION CURTERN	4	2.70			10.80			
			1	6.25			6.25			
							25.65	mtr	377.00	9670.00
H		Aluminum Work								

S. No	SOR ITEM	PARTICULARS OF ITEM	NO	L	B	D/H	Quantity	unit	Rate	Amount
22	21.1	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) :								
	21.1.2	For shutters of doors, windows and 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).								
	21.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)								
		V	8	0.45		0.60	2.16			
		Window	15	1.00		1.20	18.00			
		Door D	9	0.9		2.10	17.01			
		D1	11	0.75		2.10	17.33			
		wt @ 107kg/Rmt.					544.95	kg	425.00	231604.00
23	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								
		V	8	0.45		0.60	2.16			
		Window	15	1.00		1.20	18.00			
		Door D	9	0.9		2.10	17.01			
		D1	11	0.75		2.10	17.33			
							54.50	sqm	932.00	50789.00

S. No	SOR ITEM	PARTICULARS OF ITEM	NO	L	B	D/H	Quantity	unit	Rate	Amount
24	21.9	Filling the gap in between aluminium frame and adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.								
	21.9.1	Upto 5mm depth and 5 mm width								
		W	8	5.40			43.20			
		V	15	2.10			31.50			
		Door D	9	7.80			70.20			
		D1	11	7.20			79.20			
							224.10	mtr	82.00	18376.00
I		PAINTING								
25	13.46	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :								
	13.46.1	Water thinnable cement primer.								
		WALL INTERNEL on HDU	2	(6.25+6.65)		2	51.60			
		Waiting area	2	(2+6.25)		2.3	37.95			
		Dr. ROOM	2	(2.1+2.65)		1.8	17.10			
		Store Room	2	(2+2.65)		4.65	43.25			
		DU	2	(1.1+.9)		4.6	18.40			
		OPEN SIDE of Toilet portion	2	(1+4.2)		4.36	45.34			
		Toilet	6	1.2		0.3	2.16			
			2	4		2	16.00			
		Outer Wall	2	13.14		2.3	60.44			
			2	6.45		2.3	29.67			
		Cealing	1	12.95		6.35	82.23			
		DIDUCTION OPEN								
		W	-4	1.2		1.5	-7.20			
		V	-4	0.6		0.45	-1.08			
		D	-1	1.5		0.6	-0.90			
		D1	-1	1.2		0.6	-0.72			
		D2	-1	1		0.6	-0.60			
		D3	-2	0.9		0.6	-1.08			
							810.00	sqm	24.00	19440.00
26	13.41	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, Like birla white /JK white or equivalent, over the plastered wall surface to prepare the surface even and smooth i/c all cost of material, labour and scaffold etc in all position complete.								

S. No	SOR ITEM	PARTICULARS OF ITEM	NO	L	B	D/H	Quantity	unit	Rate	Amount
		Qty same as internal Primer ,External Primer & ceiling Primer					810.00			
							810.00	sqm	74.00	59940.00
27	13.51	Wall painting with acrylic emulsion paint, 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.								
	13.51.2	Two coats.								
		Qty same as internal plaster & ceiling plaster					810.00	sqm	56.00	45360.00
28	13.58	Applying priming coat :								
	13.58.1	With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)								
		Doors both side								
		D2	2	1.00		2.10	4.20			
		D3	4	0.90		2.10	7.56			
		D4	8	0.8		2.10	13.44			
							25.20	sqm	25.00	630.00
29	13.68	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :								

S. No	SOR ITEM	PARTICULARS OF ITEM	NO	L	B	D/H	Quantity	unit	Rate	Amount
	13.68.1	Two or more coats on new work								
		Doors both side								
		D2	8	1.00		2.10	16.80			
		D3	7	0.90		2.10	13.23			
		D4	10	0.8		2.10	16.80			
							46.83	sqm	53.00	2482.00
30	18.49	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								
			1	6000			6000.00	LTR	7.00	42000.00
J		FALSE CEILING								
	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 16 mm thick								
	12.46.1	Flat surfaces								
		Ward	2	9	8.5		153	sqm	672.00	102816.00
										1323304

S. No		Items	NO	L	B	D/H	Quantity	unit	Rate	Amount
	17.11.1	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps.	5				5.00	no	2460.00	12300.00
	17.72	Providing and fixing CP brass bottle trap of approved quality and make for sink and wash basin.	5				5.00	no	853.00	4265.00
4	19.4	Providing and laying below ground unplasticised PVC pipe to with stand working pressure of 4 kg/cm2 soild waste pipes confirming to IS:13592 and IS:4985 including jointing with seal ring confirming to IS :5282 leaving 10mm gap for thermal expansion all necessary fittings etc. complete. Excavation to be paid seperataly.								
	19.4.1	110 mm diameter OD	1	65			65.00	mtr	234.00	15210.00
5	19.5	Providing and laying cement concrete 1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20 mm nominal size) all-round PVC. pipes including bed concrete as per standard design:								
	19.5.1	110 mm diameter PVC. pipe	1	20			20.00	mtr	576.00	11520.00
6	17.61	Providing and fixing UPVC trap of self cleaning design complet. Including cost of cutting and making good the wall and floors.								
	17.61.1	100 mm inlet and 75 mm outlet	10				10.00	each	517.00	5170.00
7	17.68	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shape with 6 mm thick hard board backing :								
	17.68.2	Rectangular shape 453x357mm	2				2.00	each	642.00	1284.00
8	17.7	Providing and fixing toilet paper holder :								
	17.70.1	C.P. brass	2				2.00	each	340.00	680.00

[illegible]

WATER SUPPLY

No	Items	NO	L	B	D/H	Quantity	unit	Rate	Amount
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[illegible]

ESTIMATE FOR UPGRADATION OF CHACHA NEHRU NRC TO SMTU IN INDORE MEDICAL COLLAGE

Sno	SOR /I- no	Description	No.				QTY	Rate	Unit	Amount
1		AIR CONDITIONING								
	2 Approv ed NON SOR Item)	Supply and installation of the 5 star rating 1.8 Tr split type airconditioning units with nitril rubber insulated refrigerant copper piping upto 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: Inner grooved copper, anti-corrosive blue fins,Cooling Coil: Inner grooved copper, hydrophilic blue fins , Refrigerent R-32 , Make: Matshutisha/Hitachi/Toshiba/Daikin/STAG, Copper pipe Make:								
			4				4 each		69454.00	277816.00
2		BED HEAD UNIT								

	3 Approved NON SOR Item)	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 & Gas Connection etc. The unit shall consist of following services for each patient, 1. 1 no of Oxygen outlet, ISO 9170:1990 and BS 5682:1992 compatible 2. 1 no of Medical Vacuum outlet, ISO 9170:1990 and BS5682:1992 compatible 3.Provision for 3 nos of modular 16A standard electrical switch socket 4.Provision for 1 no of RJ11 telephone and RJ45 data socket 5.Provision for 1 no of 11 Watt CFL /LED light fittings provision. 6. Provision for 1 no monitor rack. 7. PROV for 1 no of Nurse call provision . 8. Provision for 1 no IV stand. The standard range of Patient Bed Head Unit shall be “CE”									
								12	each	11783.00	141396.00

3	28.4	SURGEON'S SCRUB SINK (2 BAY) :-								
		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 specification:-								
		• Compact surgical scrub sink should be designed for use in OT complex for pre procedural scrub up. (Double sink combination as suitable)								
		• 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. • Provided with infrared sensors, thermostatic control taps with feel safe temperature controls with foam flow attachments and provide with Betadine dispensers . • All units should have reduced anti- splash fronts. • Knee/foot operated switch should be provided additionally. The work should be executed as per the directions of engineer-in-charge.	1				1.00	Each	86000.00	86000.00
										505212.00

**ESTIMATE FOR MGPS FOR UPGRADATION OF CHACHA NEHRU NRC TO SMTU
IN INDORE MEDICAL COLLAGE INDOER (M.P.)**

Sno	SOR /I- no	Description	Qty	Rate	Unit	Amount
		CU PIPE				
1	45.16.2	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.				
	45.16.2.1	(a) 12 mm (Thickness 0.9mm)	100	250	mtr	25000
	45.16.2.2	(b) 15 mm (Thickness 0.9mm)	150	380	mtr	57000
	45.16.2.3	(c) 22 mm (Thickness 0.9mm)	250	450	mtr	112500
2	45.16.11	MEDICAL GAS AREA ALARM PANEL				
		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 the 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	15000	each	15000.00
						209500.00
		Deduct 10% as per PIU Circular on SOR Items			(-)	20950.00
		Sub Total				188550.00

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**DETAILED ESTIMATE FOR ELECTRICAL REPAIR WORK FOR UPGRADATION
OF CHACHA NEHRU NRC TO SMTU IN INDORE MEDICAL COLLAGE INDOER
(M.P.)**

S. N.	Item no.	PARTICULARS OF ITEMS	No.	L	B	H	Qty	Unit	Rate	Amount
1	4	Point wiring (excluding metallic switch box & sheet but including ockes,lamp,holders,ceiling roses etc) with 1.5 Sq. mm. PVC insulated cable FR with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI Marked of suitable size and 1.5 Sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit etc. as required as per specification for :-								
	4.1	Light Point/Fan Points.								
		a) Short point	100				100	each	394	39400
		b) Medium point	90				90	each	671	60390
		c) Long point	60				60	each	1083	64980
2	4.2	3 Pin 6 Amp socket outlet on Separate Board								
		a) Short point	40				40	each	503	20120
		b) Medium point	20				20	each	780	15600
		c) Long point	10				10	each	1192	11920
3	4.5	Point wiring (excluding metallic switch box & sheet but including switches, sockets) for 3 pin 6 Amp. Socket outlet point with 1.5 Sq. mm. PVC insulated cable FR with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI marked of suitable size and 1.5 Sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit with required materials as per specification on same board .	60				60	each	285	17100
4	4.6	4.6 Wiring for circuit wiring with PVC insulated cable FR with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) of ISI marked suitable size etc. as required as per specification								
		a) 2x2.5 Sq.mm.	250				250	metre	117	29250
		b) 4x2.5 Sq.mm.	240.00				240.00	metre	176	42240
		b) 6 x2.5 Sq.mm.	180				180	metre	225	40500
5	18.3	Supplying and fixing of approved make modular type P.V.C. box with modular base and cover plate including fixing on surface excluding switch,socket etc. as required for:-								
	18.3.2	3 Module Each	15				15	each	184	2760
	18.3.3	4 Module Each	20				20	each	218	4360
	18.3.4	6 Module	10				10	each	280	2800
	18.3.6	12 Module	25				25	each	453	11325

6	27.5	Supplying of ISI Marked and accepted standard of Miniature Circuit Breaker (MCB) of 'C' series suitable for 240/415 Volts, 50 Cycle , 10 kA Value AC supply confirming to IS : 8828 : 1996, IEC : 60898 :2002 but without enclosures :-							
	27.5.1	SINGLE POLE (SP)							
	27.5.1.4	50 Amp to 63 Amp Rating	4				4 each	472	1888
7	27.6	Supplying of MCB Isolators suitable for 240/415 Volts, 50 Hz AC supply with KA value rating 10 kA of approved make confirming to IS :13947-Part III : 1993 & IEC :60947-3:2001 (without enclosures) :-							
	27.6.1	SINGLE POLE							
	27.6.1.2	32 to 63 Amps.	40				40 each	264	10560
8		30.1 Supplying, erection and testing of approved make electric Ceiling fan of double ball bearing complete with standard down rod, canopy, hanging shackle, Aluminium blades, without regulator, A.C. 230-250 volts including connections with all necessary material complete of approved as required confirming to IS :374/1979 with up to date ammendments.							0
		Ceiling Fan (5 star & ISI)-1200 mm Sweep	40				40 each	2276	91040
9	30.2	Supplying, erection and testing of approved make Wall Mounting fan complete with Wall Bracket ,canopy, blades, speed Regulator etc .A.C 230-250 volts with connections and including raw bolt/Anchor hole fastener etc. complete finished of approved as required.							
	30.2.2	400 sweep	12				12 each	2771	33252
10	29.7	Supplying and fixing as per specification Switch of approved make ISI marked with necessary material complete.							
	29.7.5	20/16 Amps S.P.250 Volt Modular Switch	10				10 each	190	1900
11	29.23	Supplying, Fixing and Testing of Compact Fluorescent Lamp (CFL) with inbuilt electronic ballast ISI marked BC / ES cap of approved make as required as per specification							
	29.23.1	15 Watt	50				50 each	185	9250
12		Supply and fixing Led tube rod comprising of LED tube with non integral / integral driver, 6500K color temp having 40000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy > 80 lm/W. LED driver PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer							
		1 X 5/8W Integral Tube fitting complete	60				60 Each	1620	97200

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