ANNEXURE B

MATERNAL & CHILD HEALTH EQUIPMENT SPECIFICATIONS

TECHNICAL SPECIFICATIONS FOR MCH EQUIPMENTS

*Annexure 2-153 DP's+24maternity wards+250 New DP's+6 Medical Colleges

** Annexure 3 -1500 SHC's

Note: Specifications of all major equipments given below

Figures given are only illustrative only for major items, it does not specify any particular company given in picture to be quoted. Surgical Items and instrument sets at sr no 80-117 are not illustrated but these should be European CE or USFDA (From Bodies Notify under directive 93/42/EEC Medical Devices), (With High Quality Stain less steel Grade 410 & 420) & should have catalogue Number article number and country of origin/ manufacturer engraved on each instruments, should have repair center/ service center in India approved and valid certificate must be attached for item Sr no quoted by Bidder.

A. Specification of Key Surgical Instruments

Certificate of Conformity for Surgical Instruments

All Surgical Instruments should be made of highest quality materials e.g. stainless steel (S/S) for metal devices. Verification of this will be required from manufacturers/suppliers for products offered; this can be done by submitting official certification that their design and production facilities are accredited to relevant quality assurance (QA) standards such as EN ISO 9001 and 9002, EN 46001 and EN 46002 and /or Annex II of the EU Medical Products Directive 93/42/EEC, which enables manufacturers to meet the conditions required for use of CE mark.

A **certificate of Conformity** to the Test Parameters and a **Certificate of Origin** indicating the country of origin and date of manufacture shall be available to the Buyer for all the instruments and equipment.

General Specifications for Surgical Instruments

The packs required by FHD are modifications of packs described in:

'Obstetrics and Contraceptive Surgery at the District Hospital – A Practical Guide' Maternal and Safe Motherhood Programme Division of Family Health, WHO/MCH/MSM/92.8 and 'Mother-Baby Package: Implementing Safe Motherhood in Developing Countries', Maternal and Safe Motherhood Programme Division of Family Health, WHO/FHE/MSM/94.11.

a. Each pack must be packaged in a hospital grade cotton wrapper (autoclavable) as a complete pack and the wrapped packs must be packaged in a labelled clear plastic box. The remaining packs shall be in the cotton wrapper only. **Bulk loose instrument supply is NOT acceptable.** Each of the individual content of the packs must be in a clear plastic wrapper labelled on the outside for easy identification of the individual instruments.
b. Instruments must be made from surgical quality, stainless steel and must be matt surface finish. Quality should comply with EN 46002 and ISO 9002. All surgical instruments must be autoclavable at 134^{o}C and a third party European CE certificate should be produced in this regard for its reusability.

c. Instrument surfaces must NOT be stamped, indented or scratched. Anodised labelling is permissible. It is preferred if the suppliers labelled FHD name in anodised form of labelling.
d. Particular attention must be paid to the quality of box joints to ensure that they are smooth and interlock well, and to teeth and grips to ensure that they meet and interlock accurately. Finger rings must be of proper size and shape for maximum utility and comfort. The inside of finger rings must be well rounded and free of sharp edges, rough areas and grinding marks, cracks, overlaps, burrs.
e. Jaw serration must be well cut and defined and must mesh properly when the jaws are fully closed. The edges of the serration must be well chamfered and must not contain burrs or sharp edges. Teeth must be sharp (unless otherwise specified), of proper size and shape, free of rough edges or burrs, and must mesh with sufficient accuracy to ensure proper performance for the use intended.
f. Ratchet and ratchet catches must be properly aligned and undercut for safe locking. Ratchets must be of such design as to ensure easy and positive engagement and proper disengagement. Ratchets and ratchet catches must be free of burrs and sharp edges.
g. Locks, forceps and similar instruments must be of the box lock type or lap joint type. All type of locks must be accurately fitted, without stiffness and without crevices, burrs or sharp edges anywhere in the construction.
h. Screws of screw lock scissors and other instruments must be the concentrically shouldered type, countersunk, flush with, or slightly below the surface or rounded, smooth and flush at the periphery, but not riveted. The screws must retain their position after setting without binding or loosening during use.
i. Scissors
    i. The ROCKWELL hardness of the finished instruments must be within the range from 50 HRC to 58 HRC. Opposite blades must not vary in hardness by more than 4 units on the ROCKWELL C hardness scale.
    ii. Scissors must have joints, which move smoothly and must be neither too loose nor too tight: it must be possible to close and reopen the instrument easily with two fingers.
    iii. The cutting ability of the instrument must be tested. The instrument must cut clearly without tearing.
    iv. The finish and all edges and surfaces must be uniform and free from burrs, sharp edges (except where required), pores, crevices, gin marks, rough areas, cracks and overlaps.
j. The instruments must be supplied free of residual scale, acid, grease and grinding and polishing materials and workmanship must be first class throughout. Instruments must be free of defects that would detract from their appearance or impair serviceability, proper functioning and intended use.

	LIST 2 Contents Annexure B										
Sr.No.	**Equipment description for Maternal Health & Child Health**	PICU	SNCU	Paed Ward	Mat. Wing	Ann 2	Ann 3	**Total**	**Tentative Cost**	**Estimated Value (in Rs)**	Page
1	Air Conditioner 1.5 Tonne Split	12	21	0	0	0	0	33	39000	1287000	9
2	Almari Steel-(Almirah steel)(Linen Almirah)(Medicine Almairah/Almirah for drug)	3	3	11	63	122	0	202	7000	1414000	11
3	Audio system for ICU -Amplifier	0	0	0	1	0	0	1	15000	15000	11
4	Basin Stand Assorted (SS)	0	0	0	72	0	0	72	650	46800	13
5	BP apparatus stand model	0	0	0	20	0	0	20	1700	34000	14
6	Bubble C-PAP	0	4	0	0	0	0	4	150000	600000	15
7	Caesarean Section Instruments Set	0	0	0	7	74	0	81	30000	2430000	15
8	Ceiling mount LCD Projector	0	0	0	2	4	0	6	65000	390000	19
9	Central Monitoring System	0	0	0	1	0	0	1	60000	60000	23
10	Chair (Doctor & Sister chair)	8	20	10	110	31	0	148	13200	1953600	30
11	Computer with Modem with UPS,Printer with Internet connection	1	1	0	9	0	0	11	35000	385000	31
12	Diet trolley - stainless steel	0	0	0	25	0	0	25	800	20000	35
13	Doctor & Sister Table	0	0	10	45	0	0	55	3500	192500	36
14	Double Outlet Oxygen Concentrator	10	20	0	0	0	0	30	30000	900000	37
15	Double Sided Light Phototherapy LED type	0	6	0	0	0	0	6	32000	192000	37
16	Electrically Operated Pressure Controlled Slow Suction Machine	5	20	0	0	0	0	25	5000	125000	41
17	Emergency resuscitation kit adult & paed.	0	0	0	7	0	0	7	2000	14000	42

18	Enema Set*	0	0	0	7	0	0	7	100	700	43
19	Fax Machine	0	0	0	1	0	0	1	11000	11000	44
20	Fetoscope	0	0	0	20	0	3000	3020	500	1510000	47
21	Filing Cabinets (for records) -4 drawer	0	0	0	12	0	0	12	8000	96000	48
22	Flux Meter	0	1	0	0	0	0	1	9375	9375	48
23	Formalin Vaporizer	1	1	0	6	0	0	8	3000	24000	50
24	Generator 65 KVA	1	1	0	1	0	0	3	284750	854250	50
25	Geyser	2	2	0	0	0	0	4	7000	28000	57
26	Glucometer With strip	10	20	0	2	0	0	32	4500	144000	58
27	Hot air oven	0	0	0	2	0	0	2	4500	9000	59
28	Hydraulic OT Table Minor	0	0	0	2	0	0	2	40000	80000	63
29	ICU Bed	0	0	0	20	0	0	20	22000	440000	68
30	Infant meter	0	2	0	0	0	0	2	1000	2000	72
31	Instrument Trolley (SS)	0	0	0	50	0	0	50	2200	110000	73
32	Intercom (15 lines)*	0	0	0	1	0	0	1	50000	50000	74
33	Intercom (40 lines)*	0	0	0	1	0	0	1	150000	150000	74
34	Inverter with two tubular batteries 3000 watts equipment running capacity	0	0	0	2	2	0	4	25000	100000	75
35	Ip Camera	5	5	0	0	0	0	10	8000	80000	77
36	KMC Chair	0	0	20	0	0	0	20	15000	300000	78
37	LCD monitor 18" with LCD player	1	1	2	12	0	0	16	30000	480000	79
38	Linen Trolley	0	0	12	0	0	0	12	10000	120000	79
39	Mammography unit	0	0	0	1	0	0	1	**1800000**	1800000	80
40	Mattresses of Foam	0	0	0	300	1133	0	1433	2000	2866000	91

41	N2O Cylinder fo Boyles	0	0	0	16	0	0	16	4400	70400	91
42	Nebulizer Machine	0	0	6	0	0	0	6	1200	7200	92
43	O2 cylinder for Boyles 1.5 cu m B type	0	0	0	16	0	0	16	4400	70400	95
44	Over Bed Side Table for Patient	0	0	0	20	0	0	20	1200	24000	96
45	Oxygen cylinder with instrument set for Oxygen delivery -Portable	0	0	0	100	483	1500	2083	8000	16664000	97
46	Portable X Ray Machine	1	1	0	0	0	0	2	120000	240000	99
47	Printer For Computer	1	1	0	0	0	0	2	10000	20000	100
48	Public Address System*	0	0	0	1	0	0	1	30000	30000	103
49	Pulse Oxymeter multi channel monitor	0	0	0	15	74	34	123	20000	2460000	108
50	Pulse Oxymeter With Neonatal Probe	20	20	0	0	0	0	40	17200	688000	113
51	Racks -Steel	0	0	10	60	0	0	70	3000	210000	113
52	Security wise CCTV Camera	0	0	0	**16**	0	0	16	10000	160000	113
53	Semi auto analyser	0	0	0	1	0	0	1	**84000**	84000	118
54	Servo Controlled Online Voltage Stabilizer 150 KVA	6	4	0	0	0	0	10	160000	1600000	122
55	Split AC Two ton with remote with installation	0	0	10	67	206	0	283	41000	11603000	123
56	Transcutaneous Bilirubinometer	0	1	0	0	0	0	1	74145	74145	126
57	Ventilator ICU	0	0	0	2	0	0	2	950000	1900000	128
58	Ventilator Pediatric	2	1	0	0	0	0	3	1013250	3039750	135
59	Wall mounted B.P. Apparatus	0	0	0	20	0	0	20	2200	44000	141
60	Washing Machine	1	1	0	0	0	0	2	9000	18000	142
61	Washing Machine Dryer	1	1	0	0	0	0	2	15000	30000	144

62	Waste Disposal - Bin / drums /Color coded bins set of both big and small to be quoted in assorted colours along with sharps bin	0	0	0	12	750	4500	5262	350	1841700	145
63	Drinking Water cooler with RO	0	0	0	12	0	0	12	45000	540000	159
64	Water filter - Reverse Osmosis	3	3	0	1	0	0	7	17000	119000	161
65	Air Oxygen blender	5	10	0	0	0	0	15	110000	1650000	162
66	T-Piece resuscitator	2	4	0	0	0	0	6	100000	600000	164
67	Cold Light Source (LED)	2	2	0	0	0	0	4	45000	180000	165
68	Neo natal & pediatric Stethoscope	15	20	0	0	0	0	35	10000	350000	166
69	Foot Step for climbing Examination table SURGICAL ITEMS –EUROPEAN CE or USFDA Approved (enclose a valid certificate for item quoted) in SS:- (instruments will be demonstrated before technical committee to ensure the quality of instrument before opening the price bid)	0	0	0	0	407	1500	1907	500	953500	167
70	Anterior Veginal wall retractor SS	0	0	0	0	286	3000	3286	1000	3286000	
71	Sponge Holding Forcep SS	0	0	0	0	515	3000	3515	1000	3515000	
72	Plane forcep SS	0	0	0	0	493	3000	3493	1000	3493000	
73	Tooth Forcep SS	0	0	0	0	451	3000	3451	1000	3451000	
74	Outlet Forcep SS	0	0	0	0	86	0	86	1000	86000	
75	Cuscos vaginal speculum SS	0	0	0	0	100	0	100	1000	100000	

76	Episiotomy Scissor SS	0	0	0	0	100	0	100	1000	100000
77	Suture Cutting Scissor SS	0	0	0	0	100	0	100	1000	100000
78	Kidney Tray SS	0	0	0	0	100	0	100	500	50000
79	Towel Clips (Backhaus) 13 cm SS	0	0	0	0	100	0	100	200	20000
80	Artery Forcep Straight- Crile (Small) 14cm SS	0	0	0	0	100	0	100	1000	100000
81	Halstead Mosquito Forcep 12.5c- Straight SS	0	0	0	0	100	0	100	1000	100000
82	Halstead Mosquito Forcep 12.5c- Curved SS	0	0	0	0	100	0	100	1000	100000
83	Needle Holder (Mayo- Hegar) - Straight SS	0	0	0	0	100	0	100	1000	100000
84	Retractors-Doyens Big SS	0	0	0	0	100	0	100	2000	200000
85	Retractors-Doyens Small SS	0	0	0	0	100	0	100	2000	200000
86	Opeartiong scissiors, curved, blunt, pointed, Mayo,17 cm SS	0	0	0	0	100	0	100	1000	100000
87	Opeartiong scissiors, straight, blunt, pointed, Mayo,17 cm SS	0	0	0	0	100	0	100	1000	100000
88	Scissors, Straight , Mayo Blunt 23 cm SS	0	0	0	0	100	0	100	1000	100000
89	Scissors, Straight , Mayo Blunt/ pointed 23 cm SS	0	0	0	0	100	0	100	1000	100000
90	Suction Nozzle small	0	0	0	0	100	0	100	1000	100000
91	Suction Nozzle medium	0	0	0	0	100	0	100	1000	100000
92	Suction Nozzle large	0	0	0	0	100	0	100	1000	100000
93	Suction Tube (Yankauer) 23cm	0	0	0	0	100	0	100	1000	100000
94	Intestinal Clamps, Curved, Dry Pattern 23cm SS	0	0	0	0	100	0	100	1000	100000
95	Intestinal Clamps, Straight , Dry Pattern 23cm SS	0	0	0	0	100	0	100	1000	100000
96	Dressing Forcep(Tissue)18cm Toothed SS	0	0	0	0	100	0	100	1000	100000
97	Dressing Forcep(Tissue)18cm 0n-Toothed SS	0	0	0	0	100	0	100	1000	100000

98	Dressing Forcep(Tissue) 25cm Toothed SS	0	0	0	0	100	0	100	1000	100000
99	Babcock forcep 20cm SS	0	0	0	0	100	0	100	1000	100000
100	Allis Forcep 20cm SS	0	0	0	0	100	0	100	1000	100000
101	Utering Haemostatic forcep (Green Armitage) 21 cm SS	0	0	0	0	100	0	100	1000	100000
102	Hystrectomy forcep curved HEANEY 23 Cm. SS	0	0	0	0	100	0	100	1000	100000
103	Hystrectomy forcep curved MOYNIHAN 23 Cm. SS	0	0	0	0	100	0	100	1000	100000
104	Hystrectomy forcep straight toothed WERTHEIM 24 Cm. SS	0	0	0	0	100	0	100	1000	100000
105	Hystrectomy forcep 0n toothed WERTHEIM 24 Cm. SS	0	0	0	0	100	0	100	1000	100000
106	Right angle retractor SS	0	0	0	0	100	0	100	1000	100000
107	Devers retractor SS	0	0	0	0	100	0	100	1000	100000
	Estimated Value in Rs									81795320

1. Split Air Conditioner 1.5 Tonne

1. 1.5 ton, 5 star Split Air Conditioner with voltage stabilizer

2. Nominal Capacity : 1.5 ton

3. Electricity in put : 230V/50Hz/Single Phase

4. Coefficient of performance : 3 (Minimum)

5.Noise level

6. Indoor unit : Less than 45 db

7.. Outdoor unit : Less than 55 db

8. Function modes : Auto/Cool/Fan/Dry – shall have sleep and power saving mode

9. Other features : - Automated vertical swing for horizontal louvers, antifreeze thermostat

10. Compressor : Rotary type

11. Body surface finish : powder coated/high quality paint finish

12. Air filtering unit : Activated carbon cartridge, dust proof and anti bacteria filter

13. Length of tubings : 20 ft . Please quote per ft rate of copper tubing in case of site requirement is more than 20 ft

14. Remote handset : LCD display with night glow

15. Voltage Stabilizer : Stabilizer having ISI quality certification and power rating that matches with the power rating of the AC unit

Warranty 3 years and CMC thereafter of 3 years

2. Almarih Steel

Almirah Approx. Size: 1980mm(H)x900mm(W)x480mm(D)mm

Sheet thickness Approx 22 guage prime CR Sheet for body and body and Approx 20 gauge for doors. The Almirah should have four shelves making five compartments of standard size

The Almirah to be equipped with bolting device with tongue-in groove inter locking mechanism with six lever lock.

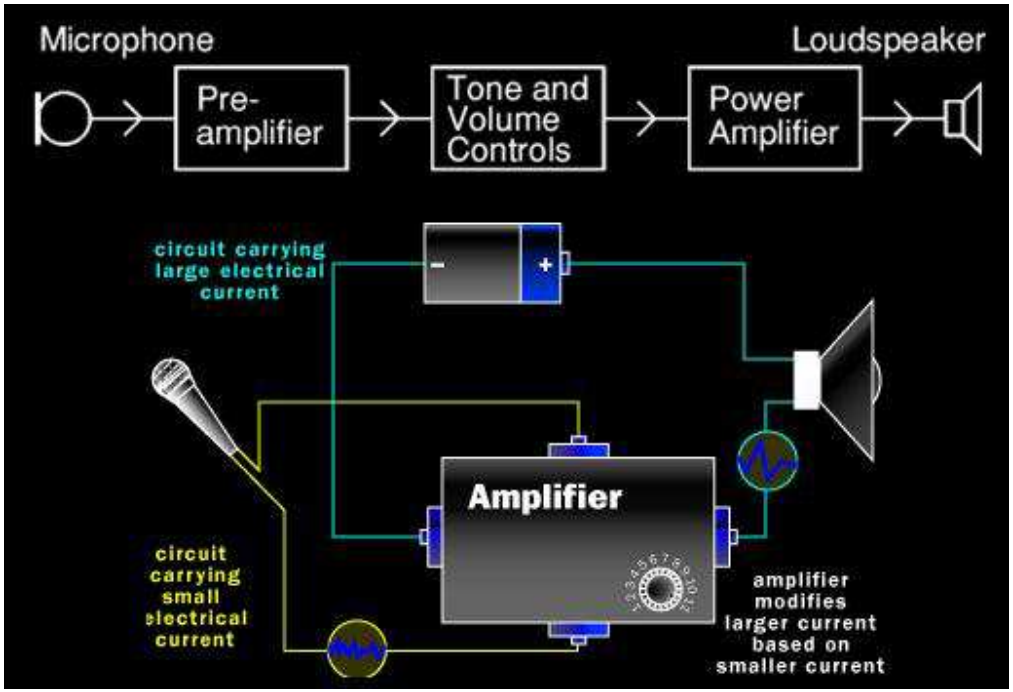
Three hinges in each door.

Door stiffener from inside to its full height in top hat section size 75mm width

Paint – Enamel paint of standard make like Asian ,Berger,Reband.Three colour choices may be given.

. In overall size +- 10 mm & thickness of sheet etc. as per Indian Standard

3. Audio-system for ICU



International Norms : The international Noise Council recommends that the noise level in an ICU be under 45 dBAin the daytime, 40 dBA in the evening. and 20 dBA at night (dBA is a scale that filters outlow frequency sounds and is more like the human hearing range than plain dB)

Program Sound Amplifier

Bidder Company shall ensure that the program sound amplifier delivery audio signals to the high fidelity loudspeaker system and video signals to a local display conform, as a minimum, to the following specifications:
a. 90 watts per channel minimum;
b. total harmonic distortion: - less than .1% (rated power);
c. frequency response analog - 10hz - 100khz +/-3db;
d. frequency response digital - 10Hz - 45KHz +/-3dB;
e. S/N - 95dB or greater;
f. controls - separate level controls on inputs, master level control and separate base / treble adjustments; and
g. inputs / outputs – minimum 5 AV inputs / output

Warranty 3 years and CMC thereafter of 3 years

4.Basin Stand Assorted (SS)-A High quality 304 **stainless steel** basin **on portable Stand with castor wheels and a aquare base .**Wash Hand Basins - The wash hand basins shall conform with the requirements specified for 350 mm diameter wash bowl in IS : 3994-1967*. The workmanship and finish shall be in accordance with IS 4033.Single Wash Basin Stand as per IS norms.To follow IS:4267-1967standards.

SHAPES AND DIMENSIONS: The thickness of tubes used and corresponding outside diameters for different parts of the wash hand basin stands shall be as given below:

Part	Thickness of Tube	Outside Dia of Tube
Upright supports	1.2 mm	25.40mm
Rings Basin Support 7 tie bars	1.02 mm	12.70mm

5. **B.P. Apparatus**

Technical Specification

1. Measurement method -Electronic

2. Measurement range:

a) Numerical display Pressure: 0 ~ 300 mmHg

b) Pulse: 30 ~ 200 beats / minute

c) Pressure bar display Pressure: 20 ~ 280 mmHg

3. Measurement accuracy

a) Numerical display Pressure: ±3 mmHg

b) Pulse: ±5 %

c) Pressure bar display Pressure: ±4 mmHg

4. Power supply- 2 x 1.5 V alkaline batteries (LR6 or AA)

5. Upper arm circumference -23 ~ 33 cm using the medium cuff

6. Number of measurements- Approx. 2000 measurements,

7. when AA alkaline batteries are used, with pressure value of 180 mmHg at room temperature of 23°C

8. Classification - Internally powered ME equipment

9. Continuous operation mode EMC IEC 60601-1-2: 2007

10. Operating conditions +10°C to +40°C / 15%RH to 85 %RH 800 hPa to 1060 hPa

11 Storage conditions -15°C to +60°C / 10%RH to 95 %RH

12. Dimensions standard

13. Weight standard

14. USFDA Approved with CE certificate.

6. Bubble C-PAP

Bubble CPAP

1. Servo controlled Humidifier base with digital temperature display, alarms for conditions like high & low temperature, humidity & disconnections.
2. Compressor – Air
3. Auto feed Humidifier Chamber with constant compressible volume to maintain CPAP pressure (Reusable Humidifier) if reusable = 6 (with each machine) if disposable = 300
4. Heated Breathing Circuit-Silicon with heater wire technology to provide proper humidification, if Reusable 6 with each machine if disposable = 300
5. Temperature & flow sensor: Temperature & flow sensing of airway and humidifier chamber with feedback mechanism.
6. CPAP generator with adjustable CPAP from 3 to 10 cmH2O with generation of Bubbles = at least 10 extra generator with each machine
7. Safety provision for maximum pressure limiting in case of occlusions, pressure damping filter.
8. Facility for pressure monitoring & delivery FiO2 monitoring
9. Non – invasive Interface should include :

   a) Nasal Tubing to hold the nasal prongs

   b) Argyl Nasal Prongs of silicon in various sizes based on nasal diameter & width of septum

   c) Infant Bonnets / Caps of different sizes to fit on head to hold nasal tubing & prongs

   · Nasal tubings (Silicon) 70mm at least 20 with each machine

   · Nasal prongs with each machine 1. Size 3.0mm/2.0mm x 20, 2. 3.5mm/ 2.0mm x 20, 3. 4.0mm/3.0mm x 20

   · Infant Head bonnet with each machine1. Size 22cm -25 cm x 20, 2. 25cm- 29cm x 20, 3. 29cm- 36cm x 20

   · Head gear 29-36cm x 20

· Chin strap 26-32cm x 5 = 20, 32-38cm x 5 = 20

10. Provision to deliver gas with selectable FiO2 (21% - 100%)
11. Unit should be supplied with Mobile stand with castor, mounting brackets (C clamp) & IV hook
12. Unit should be supplied with proper demonstration, user manual; setup guides & proper service back up
13. Unit should be supplied with International FDAor CE (European Conformity) safety regulations & certifications.
14. Documentation: · User Manual in English., · Service manual in English., · List of important spare parts and accessories with their part number and costing., · Certificate of calibration and inspection from factory.,
15. · Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist with visits by company service engineer in log book
16. The job description of the hospital technician and company service engineer should be clearly spelt out.
17. · List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service/ technical manual.

Function:Complete solution to all difficulties faced in Bag - n - mask type resuscitation.

Peak Inspiratory Pressure (PIP) control valve to adjust the maximum Inspiratory pressure delivered to baby.

Positive End Expiratory Pressure (PEEP) control valve to maintain minimum positive pressure at the end of expiration to keep the lungs inflated. Overall control over system by setting Maximum Pressure Relief to the system.

Warranty:3 years with 3 years CMC

7.. Ceaserean Section Instruments Set- Please See detailed specification for instruments in page 1 & 2

Item description QUANTITY/PACK

L.S.C.S Pack

Instrument Tray with cover – Stainless steel 300x 200 x 65	**1**
Towel Clips (Backhaus) 13cm	**6**
Sponge Holding Forceps (Forester; Straight; serrated) 25cm	**2**
Artery Forceps Straight – CRILE (Small) 14 cm	**6**
Halstead Mosquito Forceps 12.5 cm	**6**
Tissue Forceps 18 - 20 cm	**4**
Needle Holder (Mayo-Hegar) Straight 18 cm	**2**
Surgical Knife Handle (one each of No. 3 and 4 to be used with surgical blades sizes 20,21,22,23 and No 4 to be used with blade sizes 10,11,12 and 15	**2 sets**
Abdominal Retractor size 3	**1 set**
Abdominal Retractor Double Ended (Richardson-Eastman)	**1**
set of two stainless steel blades –	
Large - 49mm wide x 63mm deep & 38mm wide x 49mm deep, total length – 28cm	
Small – 20mm wide x 28mm deep & 28mm wide x 36mm deep, total length – 26 cm	

Abdominal Retractor Double Ended (Richardson-Eastman)	**1**

set of two stainless steel blades –	
Large - 49mm wide x 63mm deep & 38mm wide x 49mm deep, total length – 28cm	
Small – 20mm wide x 28mm deep & 28mm wide x 36mm deep, total length – 26 cm	
Bladder Retractor "KOCHER" 80x65mm wide, 25cm length	**1**
Operating Scissors, Curved, Blunt Pointed, Mayo, 17 cm	**1**
Operating Scissors, Straight, Blunt Pointed, Mayo, 17 cm	**1**
Scissors Straight MAYO Blunt/Blunt pointed 23 cm	**1**
Suction Nozzle	**1**
Suction Tube (Yankauer) 23 cm long, 23 French Gauge (8mm dia) removable tip and tubing connector	**1**
Babcock Forceps SS	**2**
Dressing (Tissue) Forceps 18 cm – one each of toothed (1x2 teeth) and non-toothed	**2 sets**
Dressing (Tissue) Forceps 25 cm – one each of toothed (1x2 teeth) and non-toothed	**1 set**
Intestinal Tissue Forceps (ALLIS) 19 cm, 4x5 teeth, multiple ratchet used to grip arteries and digestive tissues	**4**
Uterine Haemostasis Forceps (GREEN-ARMITAGE) 21 cm	**4**

Warranty:3 years

European CE or USFDA (From Bodies Notify under directive 93/42/EEC Medical Devices), (With High Quality Stain less steel Grade 410 & 420) & should have catalogue Number article number and country of origin/ manufacturer engraved on each instruments, should have repair center/ service center in India.See instructions on instruments on page 1 &2.

8. Ceiling mount LCD Projector:

Equipment Specifications for LCD Projector

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	System is required for projection of Video Signals from LCD Monitor on to wall screen or Large Video Screen .		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any

2.1	Universal compatible system is required.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Specifications LCD Projector 1. Screen Size - 4 meters diagonally 2. ' Aspect Ratio - 4:3 3. Computer Compatibility - VGA /SVGA/ XGA/ SXGA 4. Video Compatibility- PAL/SECAM/ NTSC 5. Projection Lamp - UHP/ METALHALIDE / NSH – LAMP. Details of lamp to be furnished in the offer 6. Lamp Life - 2000hrs Minimum If offered models are with lamp life less than .'2000 hours, additional lamps to achieve lamp life 2000 hrs. (Minimum) 7. Lamp hour counter - To be built -in 8. Brightness- 2000ANSI Lumens or higher 9. Throw Distance (Range) - Should cover 2 meters-5 meters from screen 10. Audio System Minimum - 1.0 watt RMS with built-in speaker 11. Zoom !Focusing - Lens Zoom 1:1.2 or higher, Motorized Zoom & Focus (Controlled by a Remote) 12. Remote Control - Remote control unit for PC and Mouse with inbuilt laser pointer 13. Terminals ports with connectors (Input/output) - Video IN, S Video IN, RGBIN, Audio IN, RGBOUT, 14. connectivity for remote mouse (to be specified by bidder) 15. Power Consumption - 260 W Max (to be specified by bidder) 16. Contrast Ratio - 260: I or higher 17. PCMCIA card slot with card . 18. Native resolution - 1024x768Color Pixels Minimum 19. Intelligent resizing - I280xl024 20. Key stone/Lens shift - Digital 21. Packing - Hard case high Impact, durable case for LCD Projectors		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Accessories - 1.Standard accessories, power cord, RGB cable, Video Audio Cable, Component Cable PS/2 mouse cable, remote controller 2.Replacement lamp (Optional Accessories)- One spare replacement lamp of life 2000 hours to be provided (cost to be indicated separately in the offer) 3Ceiling mount brackets (Optional Accessories)-- To be provided (cost to be indicated separately in the offer)		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of less than 70%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		

7 Standards, Safety and Training

Sl	NameB	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Manufacturer should be ISO certfied for quality standards.		
7.2	Should conform to FCC Class B.		
7.3	Should be FDA / CE/UL / BIS approved product		
7.4	Shall meet the safety requirement as per IEC 950 OR Equivalent standard		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection.		
8.3	List of important spares and accessories with their part number and costing.		
8.4	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		

Warranty:3 years

9. Central Monitoring System

Equipment Specifications for Complete Monitoring System for ICU(REVISED)

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Critical patients need to be monitored continuously in ICU at the bedside as well as at the central nursing station.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	ICU should comprised of monitors at the bedside and with central station .		
2.2	Capability of storage of patient data and printing of patient reports.		
2.3	Demonstration of the equipment is a must.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Minimum 15 inches multicoloured TFT display screen.		
3.2	Separate CPU/Module rack.		
3.3	Eight digital and waveforms/traces display		
3.4	Combination of single, dual and multiparameter modules.		
3.5	Parameter modules freely exchangeable between all the monitors.		
3.6	Multichannel (upto 12 leads) ST segment anlysis.		
3.7	Facility to monitor and display - ECG, Respiration, NIBP, SpO2, CO2 with capnography, Temp, Cardiac output(optional), NMT(Optional), BIS/Entropy(optional), EEG (optional)& IBP.		
3.8	Automatic arrhythmia detection & alarm for standard and lethal arrhythmia.		
3.9	(Line is deleted)		
3.10	NMT Module/monitor: For measurement and display of TOF count, TOF %, ST, DBS, Tetanic and Trend for continuous usage. Automatic measurement facility in selected time interval. Automatic selection of supramaximal current. Include standard accessories		
3.11	EEG Module with all accessories.		
3.12	Central station for bedside monitors with independently controlled . 17" multi colour TFT Monitor,		

	complete with Ethernet LAN cabling , alarm management, 72 hours trending, bed to bed viewing of waveforms and remote alarm management like silencing of alarms etc.(OPTIONAL)		
3.13	Should provide hemodynamic , oxygenation, Ventilation calculation package.		
3.14	Should have drug calculation package.		
3.15	Trend of at least 48 hours.		
3.16	200 nos. event recall/snapshot facility both manually and automatically triggered by alarm.		
3.17	Automatic Zoom In Facility in the monitor dispaly.		
3.18	The monitors should have monitor to monitor overview facility and data transfer over the network.		
3.19	Web browsing facility to review each networked monitors data through hospital LAN via office PC in Hospital LAN Networkand/or through dial up facility from remote location(OPTIONAL)		
3.20	CRT Slave monitors- 21 inches in ICU - one per central station		
3.21	Communications with Information Management Systems: A. To provide suitable facility for sending and receiving DICOM Compatible Radiological Images like Ultrasound , X-Ray etc to and from the monitoring network to and from Hospital Information System, Radiology Information System etc for integration of various informations (OPTIONAL).		
3.22	Include Laser Printer and dual channel strip chart recorder.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	ECG/Resp :5 Lead ECG Cable with clip- 2 sets per monitor and 10 Lead ECG Cable with clip- 1 set per monitor.		
4.2	NIBP:Adult cuff- 2nos. per monitor and two sizes of pediatric cuffs- one per monitor(complete sets)		
4.3	SpO2:Adult SpO2 sensor with cable- two nos per monitor and Pediatric SpO2 sensors- one no. per monitor.		
4.4	IBP: Include four nos. per monitor of reusable pressure transducer with bracket, holder and 100 nos disposble domes per monitor.		
4.5	Temperature: Rectal temperature probe- two per monitor and skin temperature probe- one per monitor.		
4.6	Necessary cabling for networking the monitors on turnkey basis.		
4.7	Necessary mounting solution/ mounting on any pendant for monitors		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		
5.3	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.or should comply with 89/366/EEC; EMC-directive.		
5.4	The supplier shall provide environment friendly furnitures and wall fittings for the entire system. Cabling has to be provided by the supplier.		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Internal Battery back up for 1 hour or suitable UPS		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA / CE/UL approved product		
7.2	Shall meet the safety requirements as per IEC 60601-2-27:1994—Medical electrical equipment—Part 2: Particular requirements for the safety of electrocardiographic monitoring equipment.		
7.3	Manufacturer/Supplier should have ISO certification for quality standards.		
7.4	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
7.5	Comprehensive warranty for 3 years and provision of CMC for next 3 years.		
	.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User Manual in English		

8.2	Service manual in English		
8.3	Must submit user list and performance report within last 3 years from major hospitals.		
8.4	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet.Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.		
8.5	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		
8.6	List of important spare parts and accessories with their part number and costing.		
8.7	Log book with instruction for daily , weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out		

10. Chair

Revolving chair with armrests made of PVC material with chromium plated covering and also having cushioned arms covered with best quality leather foam that suits all climatic conditions. The seat and back rest are made of 12mm thick steam press molded ply having polyurethane foam

of right density duly upholstered with best quality leather foam. The back having special contours for better back support. The chair provided with pneumatic seat height adjustment with lever, having cushioning effect and swivel mechanism. The seat & back having tilt locking and tilt tension can be adjusted
according to preferences. The chair having 700mm chromium plated metal base provided with twin wheel castors nylon.
Dimensions: Width 500 mm Height 1100 mm Depth 700 mm
Seat Height 500-600 mm
Seat Size 450x470 mm

11. Computer with Modem with UPS,Printer with Internet connection facility

Computer:

Desk top Computer(preloaded with Microsoft Standard Edition Office Std 2013 INC OLP C Gov during installation)	1. Processor: - Intel Core i5 or AMD Phenom X4 or equivalent processor. (Single Dual Core with Multi Thread per core / Quad Core or more core 64-bit x86 processor. The processor should be fully binary compatible to 32-bit applications. A Dual Core with Multi Thread / Quad Core or more cores on a single die/socket will be treated as a single processor.The Processor should be PC Mark 7 benchmarkedfor Productivity Score in the range of at least 1850 to 1900 with 4 GB memory)
	2. Mother Board: - Suitable chipset for quoted processor based motherboard with minimum one PCIe & one PCI/PCI-x slots. Motherboard should be of Small Form Factor (SFF)/ Micro ATX form factor.
	3. Memory :- 4GB DDR-3 1333 MHz or higher expandable up to 16GB
	4. Monitor:- 18.5 / 19 " LCD / LED TFT Monitor or higher (Same OEM make and Color) Monitor (Built-in/External Anti

	Glare Screen Protector) with 5 ms or better response time, TCO 05 certified and with inbuilt speaker
	5. Ethernet:-Integrated (10/100/1000)MbPS i.e. Network Integrated Gigabit Ethernet controller
	6. Mouse:-2 Button Optical Scroll Mouse USB (Same OEM make & brand)
	7. Optical Drive:- Optical Drive Dual layer DVD writer.
	8. Hard Disk:-500 GB or higher (7200 RPM) SATA II
	9. Graphics:-On Board Integrated Graphics
	10. Key Board:-Standard 104 Keys (Same OEM Make and brand as the system)
	11. Slots:-2 nos PCI , 1 Nos PCI Express x 16 & 1 Nos.PCI(Min)
	12. Audio:-Integrated sound controller with Head Phone & Microphone
	13. I/O Ports:- 1x fast serial port, 4x USB 2.0 ports (2 ports on front), 1xKeyboard port, 1xMouse port
	14. Power Supply:-200 -280 Watt min 90% or higher efficient power Supply with Energy Star 5.0 or BEE star compliant
	15. Operating System:-Genuine Windows 7 or higher with latest Service Pack, Preloaded license, OEM Media in form DVD /CD containing OS and Driver, Recovery Media must be provided.
	16. Warranty:-3 years On-Site OEM Comprehensive Warranty with 3 years CMC
	17. Antivirus Software:-Pre Loaded with Antivirus , activation code and 1 year update license
Offline UPS	
	1. Type :- Line-interactive
	2. Capacity :- Minimum 800 VA power factor

	3. Input Voltage Range :- 140 – 280 V AC
	4. Output Voltage:- 220 V +/- 10% (under line mode) 220 V +/- 5% (under battery mode)
	5. Protection :- Short Circuit, Low Battery
	6. AVR :- Built in Automatic Voltage Regulator (AVR)
	7. Battery Type & back-up time: - Batteries shall be externally Sealed Maintenance Free (SMF) type. The system must be capable of providing 30 minutes battery back-up time and capacity and make of battery should be mentioned
	8. Quality Certification:- The UPS OEM should be ISO 9001 & ISO 14001 certified and preferably the certifying body should be accredited by Quality Council of India (NABCB).
	9. Warranty :- 3 years On Site comprehensive warranty with 3 years CMC
Printer:MFP LaserJet	1. Multifunction Printer: Print/copy/scan
	2. Print speed black(normal,A4) : Minimum 18 ppm (19ppm Ltr)
	3. Print quality black : Minimum 600 x 600 dpi (1200 dpi)
	4. Print technology : Laser
	5. Standard memory : Minimum 8 MB
	6. Processor speed : Minimum 400MHz
	7. First page out black: Before 10 sec
	8. Media sizes supported : Paper (plain, laser), envelopes, transparencies, labels, cardstock, postcards
	9. Duty Cycle : Minimum 8000 pages per month

	10. Connectivity, standard : Hi-Speed USB 2.0
	11. Compatible operating systems : Microsoft Windows Operating System (including Windows 8, Windows 7, Windows Vista, Windows XP, etc)
	12. Power consumption active : 220 -240 VAC
	13. Smart Install technology (Plug & Play)
	14. Auto- On , Auto-Off Technology should be available
	15. Warranty:-Minimum of 3 years onsite comprehensive warranty and 3 years CMC
Modem:	**SDSL (Symmetric Digital Subscriber Line) Modem** SDSL modems works on SDSL lines that provide equal bandwidth in both directions. Such types of modems are useful for those businesses which need to upload as well as download large files or programs to or from the Internet. These modems use voice traffic lanes to expand bandwidth, and therefore aborting the possibility of a conversation when the SDSL modem is connected. For this purpose a dedicated phone line is required. Warranty:-Minimum of 3 years onsite comprehensive warranty Warranty:-Minimum of 3 years onsite comprehensive warranty and 3 years CMC
Smart Wireless Phone with internet charges paid for one year for ready un - interrupted connection and prompt service*	3.1 Mbps EVDO High Speed Data
(The internet charges would not be reimbursed within 30 days on	Wireless phone that connects up to 8 Wi-Fi devices

award of contract and successful installation certificate by Head of Institution duly signed sealed on format with full details of invoice etc to successful bidder by the institution head)	
	High Quality CDMA voice, data and SMS services
	Warranty:-Minimum of 3 years onsite comprehensive warranty and 3 years CMC

12.Diet trolley

Diet Trolley that is suitable to provide various food items without intermixing it. Trolley to be used for serving food hot and make them free from contaminates. Material and finish of trolley to be of good quality raw material with flawless manufacturing. The Standard of this trolley should be in conformity with prevalent market standards.

Warranty:Standard Warranty terms

13. Doctor's Table

The size of the doctors table should be 1370mmWidthX 680mm Depth X 750mm Height with two storage units of 3 drawer unit and 1 unit of two drawers.It should be made from square tubular infrastructure with a large top surface.

The product should have standard warranty with registered trademark.

14. Double Outlet Oxygen Concentrator

OXYGEN CONCENTRATOR-DOUBLE OUTLET

1. To deliver 8 Litres /min

2. Dual Port (each can deliver 4 litres / min)

   Advantage: can be connected to 2 patients at a time

3. 24 hour usable

4. Flow rate – 1-10lpm

5. Outlet pressure – 18-20 psig

   Alarms – 1. Power failure, 2. High & Low pressure, 3. Low purity test, 4. temperature Advantage: can be connected to 2 patients at a time

6. Advantage: can be connected to 2 patients at a time

7. Three years Warranty and three years AMC

23.Double Surface Phototherapy-LED type

Technical Specifications LED PHOTOTHERAPY UNIT

Irradiance: Minimum 40 µW cm-² nm [1](+10± %) at 30 cm from the With adjustable Intensity (High, Medium & Low)

Optical Sensor / Radiometer

Measurement band 0 µW cm-² nm to 200 µW cm-² nm

Resolusion- 0.1 µW cm-² nm

Reading accuracy - ±2 µW cm-² nm

Noise - <52 dBA

Wavelength>450-460 nm (peak 451 nm). free of UV and IR radiation

Electrical Specification-

Output Voltage :- 12 VDC

Output power:- 50 W

Input voltage:- 120 -240 V, 1.5 A

Operating frequency:- 50/60 Hz

Environments Requirement:-

temperature range

Operating 18 to 28 °C (64.4 to 82.4 °F)

Storage -20 to 60 °C (-4 to 140 °F)

Relative humidity

Operating -10 % to 95 % (non condensing)

Storage -10 % to 95 % (non condensing)

atmospheric Pressure

Operating -700 hPa to 1060 hPa

Storage -500 hPa to 1060 hPa

Data transmission

RS-232 serial port -Standard UART protocol

Bits per second -9600 bps

Data bits -8

Parity -None

Stop bits- 1

Flow control- None

Lamp type: Light emitting diode (LED) for 30,000 hours providing the same intensity level.

Height : Adjustable from 1270 ± 20 mm to 1730 ± 20mm up to 90°on either side.

Time totalizer: Digital (compact) 1. Time totalizer for the LED running time (non-resettable) 2. Therapy timer for the treatment time (resettable)

Examination lamp: The LED PT is provided with 2 useful examination lamp that provides normal light when the baby needs to be attended to by doctors or nurses.

Alarms:. 1. Cooling fan failure

2. Temperature unit in light unit exceeds 50°C

3. Internal supply voltage is high

4. Internal supply voltage is low

5. Current consumption of LED's is not normal

(Messages are displayed on the time totalizer display. Audible alarm is also produced.)

µ - light unit.

Cooling fan: Centrifugal type to dissipate the heat created by LED's

Power Requirements:-120 -240 V ~50/60 Hz , 1.5 A

Epoxy/powder coated body for scratch and rust prevention and PU (polyurethane) coating for plastic parts.

3 swivel casters, including 2 with brakes

Warranty: 3years warranty and 3 years CMC

16. Electrically Operated Pressure Controlled Slow Suction Machine

Electrically operated pressure controlled slow suction machine:

To extract fluid from body during emergency treatment

(i) It should have Crompton Greaves/ American Universal/GEC Motor of minimum ¼HP capacities
(ii) The machine should be portable on four wheels and handle for transportation.
(iii) The suction pump should be oil immersed fitted on motor shaft.
(iv) It should have line grinding internally.
(v) To facilitate maintenance the cover of machine should be easy to open from the top and sides.

(vi) The suction machine should be capable of producing minimum vacuum of 500 approximately mm Hg, which should be adjustable and monitored by vacuum gauge of suitable range. The suction capacity should be 15L per minute and can be regulated.

(vii) It should have two bottles of 1Liter with synthetic rubber lids. The bottle shall be fitted with the arrangement to prevent overflow of fluid

(viii) On/Off switch and power indicator should be available.

(ix) Body material: base, top and panel should be made of rustproof and corrosion resistant moulded ABS/stainless steel. The jar/bottle material: autoclavable polycarbonate.

(x) Inbuilt maintenance free battery. The battery backup up to60minutes on full charge. It should be provided with cable for ambulance/ car use.

(xi) · Systems configuration accessories, spares and consumables:

(i) System as specified.

(ii) There should be a core lead of 2 meter along with one 3 pin 15 amp,plug 01 in number

(iii) Power cable-3 core lead of 5 meter along with one 3 pins 15 amp plug 01 in number

(iv) The following spare parts per machine are also required:-

Bottles, lids, rubber seals, blades- 2each and one number suction tubing set

Environmental factors: (i) It should meet IEC-60601-1-2:2001/equivalent BIS), general requirements of safety for electromagnetic compatibility/ should comply with 89/366/EEC, EMC directive.

(ii)The unit should be capable of stored continuously in ambient temperature of 0-50ºC and relative humidity of 15-90%.

(iii) The unit should be capable of operating continuously in an ambient temperature of 10-40ºC and relative humidity of 15-90%.

· Power supply: (i) The power input should be 220-240VAC, 50 Hz fitted with an Indian plug.

(ii)A fuse/ a resettable circuit breaker of an appropriate capacity should be incorporated for protection of motor.

(iii) It should work on 220-240VAC as well as batteries. The mains adaptor is to be supplied.

· Standards, safety and training: (i) It should be FDA, CE, UL/BIS approved product.

(ii)It should conform to BIS standard for suction apparatus IS-4533, Latest revision except where specified here differently.

(iii) Manufacturer/supplier should have ISO certification for quality standards

Warranty: (iv) There should be a comprehensive warranty for 3years

Others:

(i) User/technical/maintenance manuals to be supplied in English.

(ii) Certificate of calibration and inspection should be submitted..

(iii) List of important spare parts and accessories with their part number and costing

(iv) Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist

(v) The job description of the hospital engineer should be clearly spelt out.

17. Emergency resuscitation kit adult & Pediatric

EMERGENCY RESUSCITATION KIT-ADULT & BABY:

In a carrying case, consisting of:

Resuscitator adult 1 pcs

Resuscitator chilled 1 pcs

Suction Foot Type Small 1 pcs

L-Scope 4 Blade S.S. 1Set

L-Scope 2 Blade S.S. 1Set

Oxygen Hood Round Jointless 1Set

E.T.Tube for adult 3 Pcs

E.T.Tube for Ped 3 Pcs

Airways plastic (Set of 3 pcs) 1Set

Styllete (Set of 3 pcs) 1 Set

Face mask Round shape 1 Set

Face mask rubber 1 Set

Mucus Extractor 2 Pcs

M-Forceps (Set of 3 pcs) 1 Set

M-Brush(Set of 3 pcs) 1 Set

Mouth Bite (Set of 3 pcs) 1 set

The Items in the kit should be European CE or USFDA approved .

18. Enema Set*

Designed with a spill proof valve on the 1500 cc enema bag and easy-use funnel top. 54" soft vinyl tube has a pre-lubricated, smooth, non-traumatic tip with rounded eyes for safety and easy insertion. Set also contains a moisture-proof, castile soap packet and a plastic shut- off clamp.

19.Fax Machine

Equipment Specifications for Digital Fax Machine

UNSPSC Code:
ECRI Code:

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Digital fax machines are used for sending and receiving fax messages faster.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Should have data/fax modem that provides users with the highest possible data communication rates, reliable error-free transmissions, and widespread interoperability with other users		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	• Digital Fax Machine (Plain Paper) Specifications: 1. Machine type:- Desk top digital plain paper fax machine 2. Line type:- PSTN/EPABX 3. Printing Technology: - laser 4. Compatibility: ITU-Group3 5. Document size:- A4, 210x297mm 6. Effective scanning & recording width: -A4, Min 200mrn for A4 size 7. 'Scanner:- CIS or CCD Type 8. Printing Paper Size:- A4, 210 x 297rnrn		

	9. Capacity of Tray: -Minimum 50 sheets 10. Transmission Speed (ITU Test Chart of A4 Size)- Details to be furnished by tenderer 11. Scanning Resolution: -200 x 100 DPI (Standard Mode), 200 x 200 DPI (Fine Mode) 12. Modern Speed: -14.4 Kbps (Fine Mode) . 13. Printing Resolution:- 600 x 300 dpi (min) 14. Memory: 0.5 MB (Min.) 15. Essential features:- i. Automatic Document Feeder:- 10sheets(min.) ii. Activity Report Capacity to be specified by tenderer, iii. Successful Transmission Completion Report, iv. Tx Terminal Identification, v. Remote Terminal Identification, vi. Error Code Identification, vii. Error indicator viii. ID DISPLAY: LED/LCD ix. Redialing facility,		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	All consumables required for installation and standardization of system to be given free of cost.		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		

5.2	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Manufacturer should be ISO certfied for quality standards.		
7.2	Comprehensive warranty for 3 years and 3 years AMC after warranty		
7.3	Certified to be complying with FCC, CE 0560 X or equivalent standards.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any

8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection.		
8.3	List of important spare parts and accessories with their part number and costing.		
8.4	Log book with instruction for daily , weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out		

20.Fetoscope

A fetoscope, one of the tools used for fetal monitoring, is similar to a stethoscope. It works by amplifying the sound of the baby's heartbeat. It can be used at any time during labour. It is a non-invasive method of monitoring, meaning that it carries no side effects, risks, and does not require the use of extra interventions.

In a hospital birth, standard practice is to place a continuous electronic fetal monitor on the mother's abdomen, tethering her to bed, so that multiple mothers can be monitored at one time from the convenience of the nurse's station.

Should be European CE or USFDA approved

21. Filing cabinet for records

Item Description: Four door metal storage locker a 4x4 drawer type filing office cabinet with lock and key of standard size with filing leafs within. it should be vertical Steel cabinet of standard make like Godrej or equivalent registered Brand.
Warranty: Standard Warranty

22. Flux meter-Digital

Item description: Flux meter microprocessor controlled

Technical Specifications:

1. Measures irradiation of a Photo therapy unit in frequency range 400-500 nm
2. The meter operates in humidity range of 0 to 95 %
3. Mains as well as battery operated

4. It has a back-lit clearly visible Bright display with high reading accuracy

5. Pectral Response: Blue Range (400-520 nm)

6. Accuracy: Within +/-10%

Application: This range is widely used for measuring irradiation output level of light sources in the blue range from 400 to 520 nm of wavelength.Used to measure the effectiveness of photo therapy in neonatal jaundice (hyperbilirubinemia).

- A manual with warranty card may be provided in English
- Service Engineer contact with visits at regular quarterly intervals for caliberation be ensured in log book provided.

Warranty terms: 3 years Warranty and 3 years CMC

23.Formalin Vaporizer

Formalin chamber of Appropriate Size (as used for sterlization of laparoscopes) ISI marked Indian or European CE or USFDA approved..
Warranty:3 years and 3 years CMC

24 .Generator

Diesel Power Generator 65 KVA

Eco friendly Power Generation Sets are first in the world to meet the Central Pollution Control Board (CPCB) norms issued by Ministry of Environment & Forests, Government of India

the type approval from ARAI for emission compliances

the ISO 9001 certifications for Quality Management Systems

ISO 14001 for Environmental Management Systems

warranty of 24 months from the date of the DG set supply or 5000 normal operating hours whichever is earlier

Ranges-10KVA to 600KVA (20 28 32 50.4 60 80 KVA) upto 40 air cooled above that radiator cooled

D.G. Set : Voltage 415 Volt, 3 PH AC, 1500 RPM, 0.8 PH, 50 C/S.
ENGINE : BS : 5514 IS:10000 & DN : 6271 ISO : 3046
ALTERNATOR : IS : 4722 BS : 4999 / 5000
SOUND LEVEL : 75 dB (A) at 1 meter distance

Recommended: In view of the frequent interruptions in power supply as well as prolonged power outages, provision of DG set is deemed compulsory. One 10 KVA DG set for each District Centres with Instrument / Meter panel and shed will be provided.

Required range:-

65 KVA KIRLOSKAR or equivalent AIR COOLED DIESEL G]ENERATOR SET WITH CPCB APPROVED SOUND PROOF ENCLOUSER COMPRISING OF KIRLOSKER. ENGINE: EA 16, 16 BHP, 1500 RPM AIR COOLED COUPLED WITH KIRLOSKER 10 KVA SINGLE PHASE ALTERNATOR ON COMMON BASE FRAME ALONGWITH STANDARD.

Required features: Silent DG Sets with Auto Main Failure

Sound Proof and Environment Friendly Acoustic Enclosures, Canopies

Countrywide service network

ACCESSORIES:

Base frame, Fuel tank, Battery with leads.

Required: Optional features required

- Automatic Mains Failure Panel
- Synchronizing Panel - Manual & Automatic
- Soundproofing of existing D. G. Set Rooms
- Installations Works

Installation :

Under scope of supplier as per the checklist

PRE-INSTALLATION CHECK LIST

Customer Name_____DG Set Rating_____

10 Genset Location

Location : Ground Level / Basement (First/Second) / Roof top / Acoustic enclosure

Ensure natural wind flow does not cause restriction to air outlet from radiator, if so provide barrier.

Genset should be located away from dusty atmosphere (acidic fumes / dust / fibers / chemical etc.)

Copy of Installation Bulletin available with customer

20 Room layout

Size : Length_____Breadth_____Height_____

For multiple sets ensure minimum distance between DG/GG sets as per guidelines.

Proper & sufficient openings in engine room for ventilation as per guidelines.

Arrangement for Unloading / Placement of Genset

30 Room Ventilation

Recommended openings for radiator cooled engines. Actual size at Front

Rear

Provision for forced ventilation in HE cooled engines.

40 Foundation

Size : Length_____Breadth_____Height_____

DG/GG Set placement provides area for service personnel to move around the DG/GG set.

50 Air system

Heavy duty air cleaners for dusty environment if applicable.

Fresh air ducting for fibrous conditions to prevent early choking of air cleaner if applicable.

Suitable orientation of Radiator cooled sets to avoid fiber / Dust entry in DG/GG room if applicable.

60 Exhaust system

Correct size of exhaust piping as per mode / KVA Rating to ensure back pressure within specs.

Pipe size_____

Silencer should preferably be located outside DG/GG Room.

Insulation & lagging of exhaust pipes / silencer inside DG/GG Room (except elbow & bellow).

Provide shortest exhaust pipe routing with minimum number of bends

Thimble inside wall

Exhaust pipe should be properly supported to avoid load on bellow / Turbo

Exhaust outlet orientation in wind flow direction

Chimney / Common ducting as per recommendations

70 Cooling system

No immediate obstruction in front of radiator

Location of cooling tower to ensure shortest possible pipe routing with minimum number of bends

Size of raw water piping to ensure flow as per recommendations_____

Raw water as per recommendations

HE raw water plumbing as per recommendations for multiple set installation

Ensure use of strainer / Cleaners / Valves / Instrumentation in raw water piping

Cooling tower selection as per recommendations / site conditions.

Recommended oil & coolant water should be available during commissioning

80 Fuel System

Diesel Genset

Tank location as per recommendation (should not obstruct free movement)

Shortest fuel pipe routing with minimum number of bends

Gravity feed of minimum 300 mm above fuel pump inlet line for critical start AMF sets

Gas Genset

Gas pipe line size is as per recommendations

Gas pressure available at Genset room is within limit

Manual shut off valve outside the genset room

Incase of multiple sets, suitable expansion / reserve tank is provided

Primary gas filter to ensure clean & dry gas

Provision of Pressure gauges at recommended locations

Flexible pipe between gas train and engine

Earthing across flanges and flexible pipe

Location should not obstruct flow of fresh air.

Should not obstruct movement

Proper visibility

Cabling as per recommendation

III. Obtain from the competent authorities for grant of permission for installation of Generating Set(s)

List of Approved Makes

Sr.no.	**Equipment**	**Make**	**Make Offered**
01	Engine	Engine Cummins / Greaves / Leyland / Kirloskar Oil Engines	

02	Alternator	Alternator Kirloskar Electric / Crompton Greaves / Stamford / NGEF
03	Cable	CCI / Polycab / NICCO / Asian / Gloster / Finolex
04	Cable Gland	Comet / Braco / Dowell
05	Cable Lugs	Siemens / Dowell
06	TPN SFU Contactors and Relays	L & T / Siemens / Alstom / ABB
07	Energy Meter	Alstom / Havels
08	Voltmeter/Ammeter	Meco / AE
09	Cable Tray's	Kappa / Pragathi / ECS/AE
10	Battery	Exide / Standard Furukhawa /OKAYA

IV **Warranty:3 years warrantee & CMC contract form with charges from Year 3-5**

All above to be ISI standard or equivalent

25..Geyser

Item Description:

Sr No	Item Description
1	Geyser for hot water flow
2	Body: ABS
3	Capacity:25 litres
4	Overheating thermostat protection:Yes
5	Powerconsumption:2000 Watts
6.	ISI marked, European CE or USFDA approved
7.	Warranty: 2years with 3 years CMC
8	Energy efficient preferably with 5 star rating
9.	Minimum Dimensions: 60cmx35cmx 37cm
10	Documents: warranty card with service manual and service centre details
	Warranty:3 years and 3 years CMC

26. Glucometer With strips

Blood Glucose Meter	
Sr. No.	**Description of Technical Specification**
1	**Description of Function**
1.1	Should be a hand held meter
1.2	Should require no routine maintenance
1.3	Should have reading range/linearity from 20 to 600 mg/dl
1.4	Should have a maximum reading time of less than 10 seconds
1.5	Should use electrochemical technology
1.6	Should use a minimum blood sample less than 1.5µl

1.7	Should have a LCD display
1.8	Should have measuring unit in mg/dl
1.9	Should have wide operating temperature
1.10	Should have life time replacement offer
1.11	Should have easy code entry technique
1.12	Battery should be replaceable without using any tools
1.13	Should have facility to ensure accuracy of measurements
1.14	Should be supplied with three types of control solutions of each at least 20 ml
1.15	Should be European CE / US FDA approved
2	**Specifications of GLUCOSE STRIPS**
2.1	Should be able to use capillary blood samples
2.2	Should have a minimum 4 months shelf life after opening the strip vial
2.3	All strips should have at least one year expiry date from the date of supply.
2.4	50 strips should be supplied along with the equipment
2.5	Strips should be available in the local market
3	**Lancet**
3.1	One lancet Gun to be provided free with each equipment along with 50 strips and 50 Lancets
3.2	The Bidders should quote the cost of Strips and Lancets for 8,000 tests per year per Glucometer for 3 years. The above cost shall be considered for the purpose of evaluation together with cost of Glucometer
3.3	The Bidder should quote the Unit Price of pack of 50 Strips and 50 Lancets

Warranty:Standard Warranty

27. Hot air oven

Equipment Specifications for Hot Air Oven

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Hot Air Oven is required for heating a sample under controlled conditions.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Microprocessor based system with PID-temperature controller with integrated auto diagnostic system with fault indicator.		
2.2	Thermostatically controlled system.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	External: Stainless Steel Casing :w x h x d: 850 x 600 x 700 mm (All dimensions will have a tolerance of +/- 5 mm).Insulated stainless steel door with locking and rear zinc-plated steel		
3.2	Interior - w x h x d: 40mm x 45mm x 30 mm, 55 litres app (all dimensions will have a tolerance of 5 mm) easy-to-clean interior, made of stainless steel,with supports on the three sides for three adjustable perforated stainless steel shelves.		
3.3	Forced air circulation by quiet air turbine/Fan to ensure uniform temperature		
3.4	Fitted with load indicator and safety thermostat take over indicator lamp. LCD/LED Indicator		
3.5	Temperature Variation +/- 1 deg C.		
3.6	Temperature Range- ambient to 250 deg C.		
3.7	Output available for data acquisition.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	System as specified-		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	System should confirm to IS:6365-1971(Reaffirmed 1995) with latest amendments in ISI specifications for Laboratory Electric Ovens . Alternatively system should be FDA Approved or CE Certfied.		

7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.3	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		
8.3	List of important spare parts and accessories with their part number and costing.		
8.4	Certificate of calibration and inspection.		
8.5	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		

Warranty:3 years and 3 years CMC

28.Hydraulic OT table Minor

Equipment Specifications for OPERATION TABLE HYDRAULIC

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Hydraulic operating Tables are simple tables for performing surgical procedures and it works without electrical power.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	OT Table is required for general surgery and should have X-Ray transluscent tops.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any

3.1	1. Four section table top with divided foot section 2. Table top should be constructed from a high-pressure laminate to permit x-ray penetration and fluoroscopy 3. All table positioning, i.e., height, back section, lateral tilt, trendelenburg, and anti-trendelenburg, except foot and head section should be operated hydraulically 4. Should have a manual position selector, whose location should be interchangeable between foot and head end 5. The casings on the frame and centre supporting column should be made of hygienic stainless steel 6. Mattress should be radio lucent and suitable for fluoroscopy .7Measurements:(all dimensions are approximated to +/_ 10 % variations) a. Height: 730-1040 mm b. Side tilt: + 15 degrees c. Back section adjustment: - 15 degrees to 70 degrees d. Foot section adjustment: - 90 to 0 degree, detachable e. Trendelenburg: 25 degree f. Anti trendelenburg: 25 degree g. Head section adjustment: -40 to -30 degree, detachable h. Maximum width: 555 mm approx i. Length: 1950 mm approx		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	System as specified		
4.2	Accessories should include a. Padded arm rest with straps - pair with damps b. Anesthesia screen with clamps c. Side supports: pair with clamps		

	d. Shoulder supports: pair with clamps e. Knee crutches: pair with damps f. X-ray cassette tray g. Kidney bridge h. SS bowl with clamps i. Infusion rod with clamp		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50 deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
	None		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA / CE/UL approved product		
7.2	Manufacturer should be ISO certfied for quality standards.		
7.3	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
7.4	Comprehensive warranty for 3 years		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection.		
8.3	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		
8.4	List of important spare parts and accessories with their part number and costing		

8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		

29..ICU Bed

Equipment Specifications for I.C.U Beds

UNSPSC Code: 42191808
ECRI Code: 10-351

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	ICU Beds are required in the Intensive Care for comfort of the patient and to facilitate comfortable transfer to and fro emrgency/OT/Wards etc. It is also required to carry out point of care procedures including radiological procedures at the bedside.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	The system should be electrically operatable and adjustable for heights, trendelenburg etc. It should also be		

	having radiotransluscent top for carrying out X-Ray at the bedside		
2.2	Demonstration of the system is a must		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Should have four section mattress base		
3.2	Should have X-Ray translucent back section made up of high pressure laminate.		
3.3	Should have X-Ray cassette holder underneath the back section & should allow insertion of X-Ray cassette from either side of the bed.		
3.4	Base frame & support frame should be made up of steel for long life & prevention from rusting.		
3.5	Should have stepless electrical adjustment for the following :- Height : 450-840 mm Back section : 0- 50 degrees Leg Section : 0-30 degrees		
3.6	Should have stepless pneumatic adjustment for Trendlenburg (25° approx), anti-trendlenburg (15° approx)		
3.7	Should have a manual quick release mechanism for back section adjustment during emergency situation		
3.8	Should be equipped with four articulated half length tuck away side rails		
3.9	Should be equipped with large castors (diameter 150 mm) with central braking and steering facility.		

3.10	Mattress of the Bed should be made up of high density foam with Anti Microbial agent incorporated into all components that assists in Prohibiting growth of bacteria & fungi and easy to clean.		
3.11	Mattress should be fully Radiolucent for ease in performing portable X-Rays.		
3.12	Should have bumpers at all four corners and place for fixing accessories		
3.13	Dimensions of bed : Length : 2200 -2290 mm approx Width : 850 -1020mm approx Mattress Size : appropriate as per bed size		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	I.C.U Bed Mainframe -01		
4.2	Bed Ends, detachable : 01 pair		
4.3	Articulated half length tuck away side rails : 04 Nos.		
4.4	IV Rods : 01 No.		
4.5	Mattress 12 cm Thick : 01 No.		

5 Environmental factors

Sl	Name	Technical Specs	Bidders Deviation if

		quoted by bidder	any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -500 C and relative humidity of 15-90%		
5.3	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz as appropriate fitted with Indian plug		
6.2	Resettable overcurrent breaker shall be fitted for protection		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.2	Should be FDA or CE approved product		

7.3	Manufacturer should have ISO certification for quality standards.		
7.4	Electric Shock Protection level-Class-B		
7.5	Electric current Protection- Class -1		
7.6	Certified to be compliant with IEC 60601-2-38 Medical Electrical Equipments part 2-38 Particular requirements for safety of Electrically Operated Hospital Beds		
7.7	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
7.8	Comprehensive warranty for 3 years and provision of CMC for next 3 years.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	Certificate of Calibration and inspection from the factory		
8.2	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		
8.3	List of important spare parts and accessories with their part number and costing		
8.4	Log book with instruction for daily , weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out		
8.5	Service manual in English		

8.6	User manual in English		
8.7	Must submit user list and performance report within last 3 years from major hospitals.		

30. Infantometer

Specifications for Infantometer

Readability: to nearest mm. For measurement of length, for growth assessment in infants

Technical Data

Measuring range in cm:33 - 100 cm
Measuring range in inch:13 -39 "
Graduation [Measuring Rod]:1 mm / 1/16 inch
Measure (W x H x D):1103 x 169 x 402 mm , 43,4 x 6,7 x 15,8 inch approx
Net weight:3,8 kg , 8,3 lbs
Functions: lying measurement
CE:CE 0123 approved

31. Instrument Trolley (SS)

Instrument Trolley

Technical Specifications:

Stainless steel hospital dressing and instrument trolley using for carrying dirty clothes and also can carry instruments
Stainless steel hospital dressing and instrument trolley is a standard item used in hospitals.SS trolley is with brakes.
1) It is made of stainless steel .
2). one handles, two sides with rails.
3). Sizes are adjustable.
4).four wheels, two with brakes.
Any additional features may be mentioned.

Warranty terms: Standard Warranty

32. Intercom 15 lines

Panasonic, Coral or equivalent make Digital EPABX ,Model name to be mentioned for 15 intercom lines

-Complete call accounting

-Call forwarding

-Auto call Back

With 15 extensions

After sales service with Log book and contact of Service centre is must

Product to be European CE or USFDA certified

To provide manual and Service and spares details

Warranty:Standard warranty

33. I*ntercom40 lines*

Panasonic, Coral or equivalent make Digital EPABX ,Model name to be mentioned for 40 intercom lines

-Complete call accounting

-Call forwarding

-Auto call Back

With 40 extensions

After sales service with Log book and contact of Service centre is must

Product to be European CE or USFDA certified

To provide manual and Service and spares details

Warranty:Standard warranty

34. Invertor with two tubular batteries 3000 watts equipment running capacity

Model:Exide or Equivalent make as per load for 8 hours around 13 batteries of 150 AH

1. Watts = Volts x Amps
2. Battery capacity is expressed by how many Amps for how many hours a battery will last - Amp-Hour (A.H.) capacity
3. For a 12-Volt inverter system, each 100 Watts of the inverter load requires approximately 10 DC Amps from the battery
4. For a 24-Volt inverter system, each 200 Watts of the inverter load requires approximately 10 DC Amps from the battery

The first step is to estimate the total Watts (or Amps) of load, and how long the load needs to operate. This can be determined by looking at the input electrical nameplate for each appliance or piece of equipment and adding up the total requirement. Some loads are not constant, so estimations must be made. For example, a full-sized refrigerator (750-Watt compressor), running 1/3

of the time would be estimated at 250 Watts-per-hour.

After the load and running time is established, the battery bank size can be calculated. The first calculation is to divide the load (in Watts) by 10 for a 12-Volt system or by 20 for a 24-Volt system resulting in the number of Amps required from the battery Bank.
A full-sized refrigerator draws about 2 Amps at 120 Volts AC. By multiplying 2 Amps x 120 Volts, the refrigerator uses 240 Watts. The batteries will need to deliver 20 Amps to run the refrigerator (240 Watts/12 Volts = 20 Amps). Typically, refrigerators operate about 1/3 of the time (1/3 "duty cycle"), or 8 hours a day. Therefore, the A.H. drain will be 160 A.H. (8 hours x 20 Amps = 160 A.H.).

Model	At least 6 hours backup
Capacity	150 Ah
Dimension (+/-3mm)	506
Weight (Kg + / -5%)	220
Volume of Electrolyte (1.220 Sp.Gr Litres/Cell)	257
Initial charge Minimum AH input(AH)	34.50
Initial Charge at Constant Current (A)	50.10
Constant Potential Limiting Current (Amps)	1.90
Tickle Charge (Current in mA)	585
Length	15.60
Width	7.80
Height	26
Dry	130
Filled	520

Warranty:Standard Warranty

35.Ip camera

- *Wireless PTZ IP camera, 1024 X 768 resolutions with 2 way audio and night vision facility. (FOSCAM, TENVIS or any other etc.)*
- *Installation of camera with networking, necessary category 6 cable and 300 MBPS wireless excess point.*
- *3 Year maintenance warranty of IP camera and networking.*
- *Vendor have to provide individual "IP Address/URL Address" (Login page and authentication free) of the camera along with collage of all cameras.* ***(For example views please follow the link mention on slide 6)***

We need no "Active X Control Dependency to view the camera, it should be compatible with all browsers (IE, Google Chrome, Mozilla firefox etc.

Warranty :Standard Warranty

36. KMC Chair

Specification fo KMC Chair

Material –Powder coated S.S. Frame. Backrest should be adjustable according to need. Hand rest on both sides is required.

Size – As shown in picture.

Mattress- Thickness of Mattress should be 5 Inches. Mattress for the chair should be covered with Ragzin (Linen shall not be used).

37. LCD moniter 18" with LCD player-(?DVD player?) with installation

LCD Monitor Specifications:
Product features:

Contrast ratio -600:1 Contrast ratio
Display -LCD Display
Screen Size - min 18” or + 1 inch more LCD display
European CE or USFDA Approved
Warranty:Standard Warranty
Installation included

38. Linen Trolley

Soiled Linen Trolley (Stainless steel): -

Linen Bag size: 510mm dia x H 700mmthe bag should be made up of Heavy-duty nylon cloth.

Construction: Two horizontal rings of 500mm dia made up of 20mm x 4mm thick stainless steel flat with three vertical supports of 25 mm dia x 1.2 mm stainless steel tubes mounted on 100mm dia rubber castors duly powder coated with PVC caps. Each 8 MULTIPURPOSE STOOL: -

Overall approx size: Top 280mm x 280mmx Ht 445mm

Construction: The top should be made up of 304-grade stainless steel sheet 0.9mm thick double press bent on four sides. The edges of the stainless steel sheet should be folded to 180 degree to avoid the sharp edges.

Frame Work: the frame should be made up of 25mm x 25mm x 1.2mm thick CRCA square tubes for vertical members and the horizontal members should be made up of 19mm dia x 1.2 thick CRCA tubes. The stainless steel top should be fixed with the help of pop refits in slush position. The heavy duly insertable plastic shoes should be provided.

Finish: All components should be pretreated in separate eight-tank process for better finish good adhesion and corrosion protection. Process includes hot degreasing, Derusting, activation, Phosphating & No's of water rinses as per IS 3618-1966 class 'C' type and then pretreated materials is coated with epoxy powder with film thickness of 60 microns(approx) and than oven backed at 180 degree centigrade.

39. Mammography unit

TECHNICAL SPECIFICATIONS OF DIGITAL MAMMOGRAPHY SYSTEM

For all the above specifications please mention the parameters that are offered by you as against the requirement.

The entire system should be FDA approved including the biopsy system.

S.N.	Description of function	Complies	Yes /NO
1.1	Mammography system to replace conventional Film/Screen based Mammography Studies with digital images instant		

	reviewing and analysis capability with stereotactic biopsy facility .		
S.N.	**Operational requirements**		
2.1	Full Digital Mammography System consisting of exposure stand with attached swivel system, separate console with radiation shield, automatic exposure control and mammography X-Ray Tube.		
2.2	An integrated direct-to-digital Flat Detector based on amaorphous silicon technology.		
2.3	A separate workstation for image positioning and patient demographic data is required.		
2.4	The workstation should be able to send,receive and printaccording to DICOM standards.		
2.5	The workstation should also be able to obtain DICOM modality, work list from connected information system and send information about performed procedure to the connected information system		

2.6	Read and Write in CD/DVD for data Storage and review.		

S.N.	Technical Specifications		
3.1	**Mammography System 01** The system should consist of a tube head and detector assembly that has iso centric rotation for every positioning. -The iso centric movements should be motorized. The patient Compression device should have automatic multispeed variable compression system which senses the breast density and adjust the .compression force.. The maximum compression thickness should be 18 cm or more. The patient table should have motorised grid movement. Magnification devices of ratio 1.5 and 1.8 should offered. Digital display of compression force and compression thickness should be available.		

3.2	**X-Ray Generator and Tube** The X-ray generator should be high frequency with the following parameters: kV range: at least 25-35 kV in steps of 1 kV mAS range: 0-750 mAS or more Exposure time: 0-700ms Maximum mA: 180mA or more X-Ray tube unit: Dual focus rotating anode tube with the following parameters: focal spot size: 0.1mm and 0.3mm Anode heat storage: 150 kHU or more Tube heat Storage: 1.3MHU or more Anode material: Molybdenum and Tungsten preferred Please mention the filter material used in the tube
3.3	**Flat Panel Detector:** Type of detector: Amorphour selenium

	preferred Detector size: 24cmx29cm or more with two image formats Pixel size: 70µ or less Image matrix in pixels: large size-3Kx 4K or more Small size: 2Kx 3K or more
3.4	**Workstation for image Acquisition:** The workstation should enable immediate image display for general survey for patient positioning. It should be able to store around 10000 images. The networking should on TCPIP protocol. The following image processing should be possible on the workstation: Image display: - Freely selectable screen layout - Windows settings (contrast and brightness setting) - Magnification, stepped and dynamic zoom Image inversion (black/white)

	Annotation: - Left/right marking - Text additions - Lines - Rectangles and circles Measurements: - Distance - Angle - Density Image evaluation: - Contrast enhancement(with table)

	- Display of histogram - Length measurements - Before /after comparison - Filter Administration: - The demographic patient data should be retrieved directly from a HIS/RIS system - The demographic patient data can be entered manually - Retrieval of images from CD, DVD or PACS - Printing of images on DICOM – compatible printers The workstation should be fully DICOM compatible High Contrast 1Kx 1K TFT monitor should

	be provided with workstation.		
3.5	**Biopsy:** Please quote for **Stereo tactic biopsy system** which is fully compatible with FFDM. A high resolution image of 20 1p/mm should be possible with the stereo tactic biopsy system.		

S.N.	**System Configuration Accessories, spares and consumables**	**Reply**	**Comments**
4.1	Mainframe System 01		
4.2	X-Ray tube Unit & tube 01		
4.3	Flat Panel Detector 01		
4.4	Image acquisition Workstation01		
4.5	Stereotactic Biopsy System 01		

4.6	Archieving System 01		
4.7	View Boxes – slim, four in one with fluorescent tubes and shutters with magnification device and variable luminescence 02 .		

S.N.	Environmental factors	Reply	Comments
5.1	The unit shall be capable of operating continuously in ambient temperature of 30^0 C and relative humidity of 80%		
5.2	Proper X-Ray shielding should be provided for the main equipment.		
5.3	Pre Requsites should be clearly spelt out in terms of Mammography room requirements.		

S.N.	Power supply	Reply	Comments
6.1	Suitable Power input to be 220-240VAC, 50Hz OR 440 V 3 PHASE, fitted with Indian plug		

6.2	Resettable overcurrent breaker shall be fitted for protection		
6.3	Spike protector of appropriate rating should be provided		
6.4	UPS of 30 minutes back up of suitable rating conforming to IS-302 shall be supplied .		

S.N.	**Standards and safety**	**Reply**	**Comments**
7.1	Should be FDA or CE approaved product		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.3	Safety aspects of Radiation dosage leakage should be spelt out		
7.4	Phantom for calibration should be provided.		
7.5	Should comply with AERB Guidelines for radiation leakage		
7.6	Comprehensive guarantee for 3 years of complete system		

	including x-ray tubes and electronic items and all other parts for which order will be placed with uptime warranty of 98%. Comprehensive Guarantee period will be extended by double the downtime if it exceeds more than 2% in a year.		
7.7	Rates of comprehensive CMC for complete system including x-ray tubes and electronic items and all parts for which order will be placed with an undertaking of 98% uptime and extension of CMC period by double the downtime if it exceeds more than 2%.		
S.N.	**Documentation**	**Reply**	**Comments**
8.1	User manual in English		
8.2	Service manual in English		
8.3	List of important spare parts and accessories with their part number and costing.		
8.4	Certificate of calibration and inspection from factory.		

8.5	Log book with instruction for daily , weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out		

Warranty:3 years with 3 years CMC

40. Matresses of Foam

- Overall size: - 195(L) x 92(W) x 60(H) cm.
- Available with mattress
    - High density foam ILD 48-58(lbs/50sq.)
    - Thickness- 6”
    - Cover with venlylized nylon cover with Zipper
    - Cover is antibacterial anti static acid resistant waterproof and meets fire regulation cades 16CFR1633&16CFR/1632

41.. N2O Cylinder fo Boyles

NITROUS OXIDE supplied in a cylinder:-

- Should be certified for medical use (as an inhalation analgesic) as per IP 1996.
- Should not contain less than 99.0% V/V of Ntrous oxide in liquid/gaseous phase.
- Should contain less than 10 PPM V/V of carbon monoxide.
- Should contain less than 300 PPM V/V of carbon dioxide.
- Should contain less than 1 PMM V/V of nitric oxide, less than 1 PPM V/V nitrogen dioxide, less than 25 PPM V/V of NH3, less than 1 PPM V/V of halogens and less

than 200 PPM V/V of water.
- Should be free of reducing substance/oxidizing substances and hydrogen sulphide.
- Cylinder capacity: i) A type (0.75 cubic meter)

ii) Bulk cylinder (7.0 cubic meter)

The Manufacturer/dealer/firm should have WHO-GMP/DHQH/ISI/BIS registration certificate with a valid drugs licence and explosive License.
Should cover Standard Warranty terms
Note: The instrument to be supplied first time with set for oxygen delivery.
Log book must be submitted with the Cylinder for supply records and a service book for maintenance records.

42. Nebulizer Machine

Equipment Specifications for NEBULISER

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Nebulizer is a device used to administer medication to people in forms of a liquid mist to the airways. It is commonly used in treating cystic fibrosis, asthma, and other respiratory diseases		

2 Operational Requirements

Sl	Name	Technical Specs quoted by	Bidders Deviation if

		bidder	any
2.1	Heavy duty compact Nebuliser is required.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Technical Specifications Nebuliser 1. Compact, light weight, low noise 2. Durable long life compressor. Suitable for heavy duty/ institutional (hospital) use, should be able to run uninterruptedly for one hour, Max Press= 2.0-2.5 bars 3. Should produce particle of size 1-5 micron 4. Aluminium cabinet painted with epoxy powder. 5. Piston-type electric aspirator that offers high performance and great durability. 6. Protective thermal cut out relay 7. Air delivery rate app.15 L/min. 8. 24 hours continuous work for hospital use.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
	None		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.or should comply with 89/366/EEC; EMC-directive.		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%		
5.3	The unit shall be capable of operating continuously in ambient temperature of 20-30 deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA/CE/UL / BIS approved product		

7.2	Manufacturer should have ISO certification for quality standards.		
7.3	Comprehensive training for lab staff and support services till familiarity with the system.		
7.4	Comprehensive warranty for 3 years and 3 years CMC after warranty including UPS.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	List of important spare parts and accessories with their part number and costing.		
8.3	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet.Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.		
8.4	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		
8.5	Certificate of calibration and inspection.		
8.6	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		

43. O2 cylinder with instrument set for Boyles B Type –capacities

Technical Specifications for Oxygen (medical grade) in three type of capacities of cylinders:

Oxygen:

- Should be certified for medical use as per IP 1996.
- Should not contain less than 99.5% V/V of Oxygen, not more than 5 PPM V/V of carbon monoxide, and not more than 300 PPM V/V of carbon dioxide.
- Should be free of halogens, oxidizing substances.
- Water content should be less than 67 PPM V/V.
- Cylinder capacity : i) A type (0.75 cubic meter)
  ii) B type (1.5 cubic meter)
  iii) Bulk cylinder (7.0 cubic meter).

The Manufacturer firm should have WHO-GMP/DHQH/ISI/BIS registration certificate with a valid drugs licence and explosive License.

- 40 Cu. FT. B-type high pressure seamless cylinder for medical OXygen gas
- cylinder are ISI Marked confirming to IS:7285, certified by the Bureau of Indian
- Standards (BIS) and approved by the Chief Controller of Explosives (CCOE) ,Government of India.
- 10.2 Ltr Water Capacity (40 CU.FT.),
- Fitted with bull nose type valve as per IS:3224, and neck cap.
- Color Code of the cylinder should as per IS 3933-1966 with updating till date.
- Certificate from department of explosion Government of India to be provided for
- Specified cylinder. Filled with Medical Oxygen Gas. Working Pressure 150 Kg.
- f/cm2 at 15 deg. C, Hydraulic test pressure 250 Kg. f/cm2.

Should cover Standard Warranty terms . Not to be kept loose. Should be marked as highly Inflammable.

Note: The instrument to be supplied first time with set for oxygen delivery.

Log book must be submitted with the Cylinder for supply records and a service book for maintenance records.The cylinder would remain property of manufacturer.

44. Over Bed Side Table for Patient

OVER BED TABLE (HEIGHT ADJUSTABLE)

1. Size: Stainless Steel Top 760 mm L x 360 mm W50mm x 25mm approx.
2. MS tubular telescopic stem with geared Stainless Steel handle for height adjustment from 75 mm to 1050 mm.
3. MS rectangular tubular base is mounted on four castors of 50 mm diameter.
4. Finish: All components should be pretreated in separate eight-tank process for better finish, good adhesion and corrosion protection.
5. Process includes
    i. Hot Degreasing,
    ii. De rusting,
    iii. Activation,

iv. Phosphating & No's of Water rinses as per IS 3618 - 1966 class 'C' type and then pretreated materials is coated with epoxy powder with film thickness of 60 microns (approx.) and then oven baked at 180 degree centigrade.

Warranty:Standard Warranty

46. Oxygen cylinder with instrument set for Oxygen delivery –Portable

Oxygen cylinder portable (with instrument set)

- Max. Working Pressure at 15O C : 150kgf/cm2
- Test Pressure : 250 kgf/cm2
- Water capacity : 2.5 to 3.0 ltrs
- Gas Capacity (Cu.m.) : 250 to 350 ltrs of gas.
- Min. Wall Thickness ‘t” (mm) : 3.2mm
- Length ‘L’ Approx. (mm) : 310mm
- Tare weight approx. (kg) : 2.5 Kg.
- Built in online Pressure gauge, regulator
- Statutory certifications : ISI Standards,BMP Certification WHO & Certified by Dept Explosives –GOI

46. Portable X Ray

TECHNICAL *SPECIFICATIONS* OF Portable X-Ray Unit 60 mA

a Operation Requirement
1 Compact, light weight easily transferable portable X-ray unit suitable for bedside X-ray (Box type)
2 Effective breaking system with tube stand fully counter balanced with rotation in all direction.
3 Exposure with remote control should be available.
4 Cassette storage facility for all size cassettes along with cassettes screen 15” x 12” =4 Nos., 12” x 12” = 4 nos., 12” x 10”= 4 nos., 10” x 8” = 4 nos. (800 speed cassettes.)
5 Lead blocker 15” x 6” =2 nos.
6 Lightweight lead apron = 2 nos.
7 Lead letters & numbers 2 sets = 4 nos.
b Technical Specification
1. mA range : 60 mA, light weight, kV range : 40 kV to 90 kV.
2 . Should have digital display of mAs and kVs.
3. 3 Microprocessor controlled high frequency, output 15 kW or above.
c X-ray Tube
1 Stationary Anode

2 Light beam collimator of multi leaft type of auto cutoff switch.
3 Exposure release switch should be detectable with a cord of sufficient length minimum 30 meters as per IRCP recommendation.
d Standard Safety
1 Should comply with AERB/BIS/IRCP guidelines for radiation leakage and X-ray equipments.
e Documentation
1 Comprehensive warranty for 3 years on complete system including X-ray tube & accessories, all vaccumated items
2 CMC for 7 years for complete system including X-ray tube and all vaccummated items & accessories.

47.. Printer For Computer

Equipment Specifications for Mono Laser Printer -20 PPM (Language Printer)

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
	None		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
	None		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Specification Mono Laser Jet Printer: 1 Speed (Min) 20 PPM (A4) 2 Memory RAM (Min) 32 MB 3 Resolution 1200*1200 dpi 4 Paper Size A4, A5, Letter, Legal with Compatible paper tray 5 Interface USB, Ethernet(UTP) 6 Paper Handling Input Tray (250 Sheets min.) 7 Monthly Duty Cycle 10000 Pages 8 Languages :(Built in)PCL5e/ PS2 or higher 9 Automatic duplex printing 10 Interface Cables & Accessories 11 Drivers software in Linux & Windows .		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any

	None		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.or should comply with 89/366/EEC; EMC-directive.		
5.2	The unit shall be capable of operating continuously in ambient temperature of 20-30 deg C and relative humidity of 15-90%		
5.3	The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		

7 Standards, Safety and Training

Sl	Name	Technical Specs	Bidders Deviation if

		quoted by bidder	**any**
7.1	Should be FDA/ CE/ UL / BIS approved product		
7.2	Manufacturer should have ISO certification for quality standards.		
7.3	Comprehensive training for lab staff and support services till familiarity with the system.		
7.4	Comprehensive warranty for 3 years		

8 Documentation

Sl	**Name**	**Technical Specs quoted by bidder**	**Bidders Deviation if any**
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	List of important spare parts and accessories with their part number and costing.		
8.3	Certificate of calibration and inspection.		
8.4	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		
8.5	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet.Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.		
8.6	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		

48. Public Address System*

TECHNICAL SPECIFICATIONS
PUBLIC ADDRESS SYSTEM

The voice alarm system shall be the integrated solution for BGM(Back ground Music) and EVAC(Emergency Voice Alarm). The voice alarm system shall be designed for public address andemergency evacuation. All the essential EVAC functionality – such as system supervision, spare amplifier switching, loudspeaker line surveillance, digital message management and a fireman's panel interface –shall be combined.

A 24Vdc output shall be available to supply power to external relays, so no external power supply shall be required for that purpose. A LED VU-meter shall allow for monitoring of the master output.

The maximum/rated output power of the internal booster shall be 150 W / 300 W. max mains inrush current shall be 8A @ 230 VAC / 16A @ 115 VAC
The frequency response shall be 60 Hz – 18 kHz (+1/-3 dB, @ -10 dB ref. rated output. The distortion shall not exceed 1% at the rated output, 1 kHz. The controller shall have tone controls to allow for adjustment of the BGM sound. It shall have separate bass and treble controls. The controller shall have two BGM source inputs and a mic/line input with configurable priority, speech filter, phantom power and selectable VOX activation.
The operating temperature range shall be -10℃ to + 55℃. The storage temperature range shall be -40℃ to +70℃.
The system shall comply to the following standards:
 EVAC compliance acc. to IEC 60849
 EMC emission acc. to EN 55103-1
 EMC immunity acc. to EN 55103-2
 Safety acc. to EN 60065
The system shall be the Bosch Plena Voice Alarm System.
The controller shall be the Bosch Plena Voice Alarm Controller 1990/00.
The router shall be the Bosch Plena Voice Alarm Router 1992/00.
The call station shall be the Bosch Plena Voice Alarm Call Station 1956/00.
The cal station shall be the Bosch Plena Voice Alarm Call Station Keypad 1957/00

1 - GENERAL REQUIREMENT

The design, supply, delivery, installation, testing, commissioning and maintenance of the Public Address System shall include, but not limited to the following:
 Recessed mount (ceiling), surface mount, column and / or horn speakers, sound projectors, box and bi-directional box speakers c/w line matching transformers and volume controls, where applicable;
 Termination of all cables to speakers, power amplifiers, etc.;

 Equipment rack complete with forced air ventilation fan(s), mounting brackets blank panels, terminal boards, etc.
 Main equipment and all associated auxiliary equipment;
 Distribution cabling, including fire rated cables, where applicable, cable ladders, racks and Cable supporting systems (cable trunking and concealed metal conduits)
 All other works and materials necessary for the efficient operation of the whole audio system Complete with power supply requirements and surge arrestors and filters.

The primary objective of the system is to provide clear announcements during public addressing and one-way voice communication during an emergency; the secondary function shall be to provide background music where required.

The system shall be capable of fulfilling the following requirements:

 Clear, un-distorted announcements to selected areas during public addressing;
 Clear, un-distorted paging to all zones; either individually or collectively. Selection of groups of zones shall be programmable from time to time; and
 Background music to selected areas when the other functions are not selected.

The loudspeakers shall be wired up in zones and with supervision; localized volume controls as specified shall be provided so that the desired volume adjustments may be made. Locations of localized volume controls are as indicated in the Schedules and /or drawings.

The zones shall further be grouped according to function so that it shall be possible to make an announcement by depressing just one switch on the call station.

To allow flexibility in the system, it shall be designed to be expandable with easy installation without changes in controller.

When the zones are selected for public addressing, a chime shall first be heard, followed by the announcement. The system shall have a range of tones such that it shall be possible to programme different tones for call stations.

It shall be possible for the system to function with different call stations in operation, provided there is no conflict in the zones being called by the call stations. An emergency call station shall be provided for emergency.

The controller shall have a system of priorities such that, should a conflict situation arise, the station or user key with the top priority will override the others. This sequence of priorities shall be determined and programmed during the commissioning stage; it shall be possible to change the sequence by on-site as well as off-site re-programming, as and when the need arises.

The system shall comply with country Public Address Evacuation Code of practice or IEC 60849 for the one-way emergency voice communication system in all aspects.

All control and switching equipment shall be centralized and decentralized as specified and located in equipment racks in the FCC and equipment rooms. No other equipment except the volume controls and cable patch panel shall be located outside the equipment rack.

All equipment supplied shall be from the same manufacturer. Equipment supplied shall strictly be Standard Products from Public Address Product Manufacturer. No tailor- made product shall be acceptable. The tendered shall submit catalogues of all equipment offered and upon delivery; certificate of country of origin, Certificate of Conformity and Certificate of Evacuation for the proposed PA Equipment shall be submitted.

Zoning for the passenger lifts shall be provided as provision and shall complete with the necessary wiring to be terminated in a termination box near the control panel in each lift motor room. Group zoning for the lifts shall be allowed for evacuation announcement.

2 - SYSTEM REQUIREMENT

For general office and public areas, the system shall be capable of delivering a sound pressure level of 85 dB at the listening level.

For M & E areas such as plant rooms, etc where the noise level is higher (assumed to be $\leq$80 dB), the system shall be able to deliver 95 dB at the listening level.

The listening level shall be taken to be 1.5 m above floor level.

The reinforced sound shall be distributed evenly throughout the listening area; the total variation in each area shall not exceed ±4 dB.

An articulation loss of consonants of less than 15% shall be maintained. (Generally, the reverberation time of the various locations shall be assumed to be not more than 1.9 seconds).
Paging announcements shall be possible from any of the microphone call stations, or from the microphone paging station to any zones within the network systems.
Call station shall be using CAT 5 cable with RJ 45 connector to transmit calls.
The microphone paging station shall have the flexibility of selecting any number of user keys (selection buttons) at any one time. It shall be able to program each user key for function.
The central controller shall have a means of monitoring, to continuously monitor the system from the microphone of the call station onwards; any faults shall be displayed on the central unit.
High quality signals shall be maintained at the output of the power amplifiers to compensate for losses in the audio distribution lines. Each power amplifier with 30% spare capacity shall be provided to drive all loudspeakers during an emergency without overloading.
Each power amplifier shall have a built-in self-restoring protection circuit to guard against hazards of operation such as mis-loading at its input, short-circuiting of its output and connection mistakes.
The power amplifiers shall also have built-in line transformers for 100V loudspeaker matching, DC input of emergency operation. It shall have amplifier monitoring and auto-changeover over circuits & automatic volume control features built-in.
The power amplifiers shall have control inputs and audio inputs for interfacing for fire alarm signals. This control inputs shall be supervised, freely programmable for any system actions and with priorities setting.
A built-in amplifier monitoring circuits shall continuously monitor the functioning of the power amplifiers and shall automatically switch in a spare power amplifier in case of failure of any of the amplifiers. Upon detection, the status of the fault shall be indicated in the Central or local Monitoring.
The number of spare power amplifiers to be provided shall be ten percent of the total quantity of each range of power amplifiers.
All speaker lines shall be supervised for open circuit fault, short circuit fault, and short to ground fault.Upon detection, the status of the fault shall be indicated in the Central Monitoring.

The loudspeakers shall be located such that they meet the necessary requirements. Rooms with on / off volume control units as required are indicated in the schedule of tables. Facilities shall be incorporated to override these volume control units, including those in the “off” position to enable emergency announcements to be broadcast. In general, one ceiling speaker shall be provided for every 25 square meters in each room such as offices and corridors, while a minimum of one ceiling speaker shall be provided for areas less than 25 square meters such as booths, pantry and toilets. Horn speakers shall be provided for all plant rooms, generator rooms and outdoor areas with high ambient noise.
The system shall also have the means to cut-off the music sources during emergency paging and shall enable the emergency announcement to be heard in these areas. All volume controls as specified shall be overridden during emergency announcements.

There shall be background music to selected areas. It shall be possible to pre-program any of the output music to any of these zones. Sources provided shall be a continuous cassette player, MP3, an integrated compact disc player with digital tuner.

All equipment such as the central network controller and power amplifiers shall be housed in 19-inch equipment racks.

3. POWER AMPLIFIERS:
It shall meet the following minimum requirements:

The main function of the power amplifier is the amplification of audio signals for the loudspeakers. It shall be possible to select the output voltage between 100V, 70V or 50V by changing output. The power amplifiers are provided with compact 19", 2U & 3U high housing for tabletop use and rack mounting, while the maximum amplifier wattages varies from 120w to maximums 960w.
The amplifiers are protected against overload and short circuits. A temperature-controlled fan ensures high reliability at high output power and low acoustic noise at lower power output. Additionally, all booster amplifiers have an overheat protection circuit that switches off the power stage if the internal temperature reaches a critical limit due to poor ventilation or overload.
Balanced input and a loop-through connector shall be available for easy connection of multiple booster amplifiers to increase the available output power. The power amplifier shall obtain two balanced inputs with priority control, each with a loop-through facility. This allows for easy and automatic switching between e.g. a local music source and a priority announcement from a remote system.

An additional 100V line input is provided to connect the booster amplifiers to a 100V loudspeaker line, for additional output power e.g. on remote locations. Sensitivity or level control is located on the rear of the unit to avoid accidental setting change. A VU-meter with LED-bar shows the output level.
The amplifiers not only provide 70V and 100V outputs for constant voltage loudspeaker systems, a low impedance output for 8 Ohm loudspeaker loads is available for different usage.The booster amplifiers operate both on mains power and on a 24V battery power supply for emergency back up, with automatic switchover. Amplifier front panel with LED shall shown as an indicator when it operates on the battery or AC supply.
The power amplifier shall be with the following approval: -
• EMC emission acc. to EN 55103-1
• EMC immunity acc. to EN 55103-2

PERFORMANCE

• Frequency response 50 Hz – 20 kHz (+1/-3 dB, @ -10 dB ref. rated output)
• Distortion <1% @ rated output power, 1 kHz

INPUTS

• Line input (3-pin XLR, 6.3mm phone jack, balanced)
• Sensitivity 1 V
• Impedance 20 kOhm
• CMRR >25 dB (50 Hz-20 kHz)
• Line input 1, 2 (3-pin XLR, balanced)
• CMRR >25 dB (50 Hz-20 kHz)
• 100V input (Screw, unbalanced)
• Sensitivity 100 V
• Impedance 330 kOhm

OUTPUTS

• Line loop through output t (3-pin XLR, 6.3mm phone jack, balanced)
• Nominal level 1 V
• Impedance direct connection to line input
• Line loop through output 1,2 (3-pin XLR, balanced)
• Impedance direct connection to line input
• Loudspeaker outputs (Screw, floating)
• Output power @ 24 V

• Battery operation -1 dB ref. rated power

ENVIRONMENTAL CONDITIONS

• Operating temperature range -10 to +550C
• Storage temperature range -40 to +700C
• Relative humidity <95%

4. POWER SUPPLY

The contractor shall make provision for all necessary power supply units, voltage regulators, etc, to ensure that the equipment will perform satisfactorily c/w necessary surge arrestors and filters. All necessary power supply (s/s/o's etc) required for the operation of the sound equipment shall be designed supplied and installed by the contractor.

5. EMERGENCY OVERRIDE UNIT

The emergency override unit when activated from the Fire Command Center, it will override all incoming signals to allow emergency messages to pass through.

6 - SYSTEM TESTING

The contractor shall test the system in the presence of the Superintending Officer to show that its performance satisfies the requirement of this specification. All test equipments shall be professional and supplied by the contractor. A sound pressure meter will be required. No claim is allowed for this test. The cost shall be deemed to be included in the schedule of rates for the equipment.

LIST OF APPROVED MAKE

PUBLIC ADDRESS SYATEM - BOSCH / BOSE / AHUJA

Warranty:3 years with 3 years AMC

49.Pulse Oxymeter multi channel monitor(Adult & Pediatric)

. Pulse Oximeter

Sr. No.	Description (Salient features)	Compliance (Yes/No)	Deviation if any
1	It should be table model lightweight, compact & portable with following features.	-	-

2	It should have 12x1.2Ahv rechargeable battery with at least 8 hours Battery Backup.	-	-
3	Power supply- 230v AC, 50 Hz	-	-
4	It should have both adult & pediatric (including neonatal) monitoring modes	-	-
5	**SpO2** • Range - 0 to 99% • Resolution - 1 % • Accuracy - ± 2 to ± 3%	-	-
6	***Pulse rate*** • Range - 20-300 BPM • Resolution - 1 BPM • Accuracy - ± 1%	-	-
7	**Alarms** (Audio/Visual) Hi/Lo diteh of the sound changes with the change of Spo2, pulse • High SpO2 - 70 to	-	-

	98% • Low SpO2 - 30 to 98% • High pulse - 80 to 250 bpm • Low pulse - 20 to 150 bpm		
8	Mode: Real time average of 15 sec, 20sec, & 30sec	-	-
9	Tubular Trends memory up to 72 hrs.	-	-
10	Time Scale: 5sec to 5min programmable	-	-
11	Graphical Trend Memory- 24hrs, 5sec to 5min.Programmable	-	-
12	Sequence Data Memory- 100 Test data	-	-
13	Pulse Amplitude- 12 segment bar graph	-	-
14	Output- Rs. 232	-	-
15	***Display*** Type - Led(Red Yellow)	-	-
16	*Additional Features if any*	-	-
17	*Name of the manufacturer*	-	-

18	*Model No.*	-	-

Warranty terms:3 years Warranty and 3 years CMC

50. Pulse Oxymeter With Neonatal Probe

Pulse Oxymeter With Neonatal Probe

SPECIFICATIONS FOR NEONATAL PULSE OXYMETERS

1. Method: Dual wavelength LED

2. Oxygen saturation
   - Range 0-99%
   - Resolution 1%
   - Accuracy ± 2 at 70-99% range, ± 3 at 40-70% range
   - Averaging time selectable (3-21 secs)
   - Search time selectable (10-40 sec)
   - Sensors Re-usable finger probe,
     Re-usable flexible multi-site probe

3. Pulse rate
   - Waveform Plethysmographic or bar form
   - Range 20-250 bpm
   - Resolution 1 bpm
   - Accuracy ± 2 bpm

4. Display Saturation

   Pulse Rate

   Waveform

   Alarms

4. Alarms
    - High SpO2 Range 70-99%
    - Low SpO2 Range 50-99%
    - High pulse 20-250 bpm
    - Low pulse 20-200 bpm
    - System alarms Probe failure
      Poor signal

      Power failure

5. Trends
    - Memory 12 hours
    - Data interval 20 sec
    - Display 2-12 hours
6. Power 220/240 V AC, 50/60 Hz

   Rechargeable internal battery

   Battery back-up at least 2 hours
7. Accessories 10 Re-usable finger probes

   10 Re-usable flexible multi-site probes
8. Warranty 3 years from date of installation
9. Maintenance 3 years CMC after warranty period

51. Racks -Steel

Slotted Racks

Overall size minimum height 6feet width 3feet Prime quality cold rolled, close-annealed steel is treated with unique seven stop anti-corrosion process for extra durability the multi bend seamless construction ensures rigidity and prevents pests from entering. Automatic airless electrostatic painting using alkyd amino pain provides a smooth, scratch resistant surface.

52. Security wise CCTV Camera

Technical Specifications of Camera-

Image Sensor	1/3" HDIS
Signal System	PAL
Lens	4 mm Fixed Board
Horizontal Resolution	720 TVL
Effective Pixel	768(H) x 494(V)
S/N Ratio	More than 50dB
IR LED	24
IR Distance	20 Meters

Video Output Signal	1.0Vp-p Composite Signal (75 Ohms)
Scanning Frequency	15.625 Khz (H) & 50Hz
Signal Process	Digital
Scanning System	2.1 Interlaced
Minimum Illumination	0 Lux/F1.2 (IR ON)
Auto Gain Control	Yes
Electronic Shutter	1/50-1/100,000
White Balance	Auto
Day & Night	Auto
Operating Temperature	-10°C to 50°C
Power Source	DC 12V

A DVR camera is a security system which links one or more cameras to a digital video recorder. It's main advantage is that it can record for much longer periods without the need to change tapes. The technology also means it is possible to review footage immediately while continuing to record.

Technical Specifications of DVR-

Main Processor	High Performance Embedded Microprocessor
Operation System	Embedded Linux OS

Signal System	PAL/NTSC
System Resource	Recording, Playback, Remote Access
Operation Interface	Front Touch Panel, Mouse, Remote
Video Split	1/4/9 Split Display
Video Playback Resolution	2 Channel D1 and 6 Channel CIF
Bit rate Control	Dual stream
Image Control	6 Levels
Recording Speed	PAL: 25fps/channel, NTSC: 30fps/channel
Video Display Resolution	PAL: 720X576 fps
Motion Detection	Configurable detection areas
Audio Compression	G.711
Recording mode	Manual , schedule, sensor, motion detection
Recording Prioritys	Manual > Alarm > Motion Detection > Schedule
Playback	Single Channel, 8 channel Simultaneous

Playback Search	Date, Time, Event, Channel
Video Storage	Local HDD
Backup Mode	USB, DVDRW
Video Input	8 ch. BNC (1.0 p-p, 75 ohm)
Video Output	1 BNC , 1VGA(800x600, 1024x768), Network
HDMI Output	Yes
Audio Input	4 channel RCA
Audio Output	1 channel RCA
Ethernet Interface	RJ45 10M/100M Base-TX
PTZ Interface	1 x RS485
USB Interface	2 x USB2.0
HDD / SATA Interface	1 x SATA
DVDRW	Supports USB
Back Mode	USB, DVDRW, Network
Protocol	TCP/IP, DNS, PPOE,DHCP, DDNS,UDP, FTP E-mail, Alarm Server

	, IP Filter
Remote Operations	Monitor, PTZ Control, Playback, Setting, Video Download, Logs
Power Supply	DC12 10%
Power Consumption	<15W (HDD not included)
Working Temperature	-10°C~ +55°C
Working Humidity	10%~90% RH

Audio functions

System can record Audio surround synchronized with video of particular area

3 layer remote monitoring

System can be monitored on different levels of monitoring as follows:

- Cluster of District officer level
- Division level
- State level

CMS based Centralized remote monitoring

- Video Wall Solution Unlimited Live Views
- 64-channel Live Video Monitoring with Dual Monitors
- 16-channel Synchronous Playback

- PTZ/ePTZ/PiP(Digital Zoom) Function Control
- Alarm Management
- Overall Device Management Feature
- Multi-channel Audio Broadcast
- Post-Video Enhancement and Defog
- Instant Replay & Playback on Live Client
- Auto Stream Size for Reducing Display Loading
- Web Access via Internet Explorer
- Windows Active Directory Integration
- *Warranty: Standard warranty*

53. Semi auto analyser

Equipment Specifications for Semi-Automatic Bio Chemistry Analyzer

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	For analysis of serum, plasma, urine, cerebrospinal fluid (CSF), hemolysate and whole blood.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Should be open system and Supports bi-chromatic tests for end point, fixed-time, kinetics methods.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Should be microprocessor controlled general purpose bi-chromatic photometer		
3.2	Self monitoring temperature system with at least 6 filter ranging from 340 to 630nm.		
3.3	Light source: Tungsten/ halogen or higher grade with one additional bulb. controlled absorbance reading.		
3.4	Should have end point, kinetic and two point kinetic measurement modes.		
3.5	Should have flow cell measuring device.		

3.6	Should have a measurement range from 0.001 to 2.300Abs		
3.7	Should have facility for reading results on LCD display.		
3.8	Should have quality control – two control/test QC survey.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Integrated Printer.		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and		

	relative humidity of 15-90%		
5.3	Thu unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of less than 70%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz		
6.2	UPS of suitable rating shall be supplied for minimum 1 hour backup for the entire system		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Certified for meeting IEC 60601-1-4 Medical electrical equipment - Part 1-4: General requirements for safety - Collateral Standard: Programmable electrical medical systems		
7.2	Attach original manufacturer’s product catalogue and specification sheet. Photocopy/ computer print will not be accepted. All technical data to be supported with original product data sheet. Please quote page number on compliance sheet as well as on technical bid corresponding to technical		

	specifications.		
7.3	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.4	Should be FDA (US)/ CE approved product		

Warranty terms:3 years Warranty and 3 years CMC

54. Servo Controlled Online Voltage Stabilizer Specify150.KVA as per load (properly distributed) so that sensitive sensors of SNCU are not affected

High speed electro mechanical regulators that provide constant voltage by Dsing a variac along with a buck boost transformer makes a servo stabilizer. These are ideal for places where the problem of low Voltage,high voltage and unexpected and continuous voltage fluctuationsexists.
TECHNICAL SPECIFICATIONS
Rating: 1KVA to 1000KVA
Input Voltage: 160-260/140-270/90-279V 1Phase
340-470/300-470/240-470V- 3 phase
Input frequency:50 Hz +/- 10%
Output Voltage: 230V 1 Phase (Pre Settable range 215~235)
410V 3 Phase (Pre settable range 380-415)
Output Regulation:+/- 1% or 0.5%
Wave form distortion: Nil
Motor Type: Nonflammable,burn proof high torque ACsynchronize motor
Warranty: 3 years with 3 years CMC

55. Split AC 5 star rating Two ton with installation

Equipment Specifications for Air Conditioner 2 Tons

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Required for cooling, dehumidifying, air circulation, ventilation and filtering in the sizes of nominal cooling capacities .		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Split Type Room Air Conditioner is required		
2.2	Capacity of 2 Tons is required with installation		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any

3.1	1.Approx Over all Dimension of (a) The unit (LxHxD) cms Company Standard Dimentions for 2 ton AC Split type of 5 star rating 2.Details of Compressor (a) Name of Compressor ----------KILOSKAR/TECUMSEH or equivalent---------- (b) Maximum full load current :11.0 / 11.6 of compressor at rates voltage at IS rated test condition		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	System as specified		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50 deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of operating continuously in ambient temperature of 5 to 45 deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Suitable Automatic Voltage regulator/stabilizer meeting ISI specifications should be supplied. Broad specifications are : Automatic Type Input 150-280V , Output 220 V +/- 7 % , 50 Hz . Single phase , AC with automatic 2-4 sec Cut Off and 6-9 minutes restart delay.. Quick start arrangements for bypassing the start delay. Suitable MCB on input voltmeter and indicators on Front Panel. Input Poer Cable with 15 A Plug and six way output terminal strip for two outlets		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be conforming to IS: 1391 (Part-I)/92 for room airconditioning		
7.2	Manufacturer should be ISO certfied for quality standards.		
7.3	Comprehensive standard warranty		
7.4	Should have a minimum 5 star on Energy Saving Star band		

8 Documentation

Sl	Name	Technical Specs quoted by	Bidders Deviation if any

		bidder	
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection.		
8.3	List of important spare parts and accessories with their part number and costing.		
8.4	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		

56.Jaundice Meter (Transcutaneous Bilirubinometer)

ELECTRICAL SPECIFICATIONS

Battery Number of measurements (when fully charged) Internal NiMH 250

AC adapter

Input 100 V ~ to 240 V ~, 50/60 Hz, 11 VA to 18 VA

Output 9 VDC, 500 mA

Light source Pulse xenon arc lamp

Light source life 150,000 measurements

Sensors Silicon photodiodes

PHYSICAL SPECIFICATION

Width 56 mm

Depth 45 mm

Height 168 mm

Weight 203 g ± 10 %

PERFORMACE SPECIFICATIONS

Measurement range	0.0 mg/dL to 20.0 mg/dL (0 µmol/L to 340 µmol/L)
Clinical Data Standard Error of Estimate (SEE)	± 1.5 mg/dL or ± 25.5 µmol/L (> 35 weeks gestation)
	± 1.6 mg/dL or ± 27.4 µmol/L(24 – 34 weeks gestation)
DATA TRANSMISSION	USB port HL-7 or CSV

AMBIENT CONDITIONS

DURING OPERATION

Temperature	10 ℃ to 40 ℃ (50 ℉ to 104 ℉)
Air pressure	700 hPa to 1060 hPa
Altitude range	-400 m to 3.000 m
Relative humidity	30 % to 95 % (without condensation)

DURING STORAGE AND TRANSPORT

Temperature	-10 ℃ to 50 ℃ (14 ℉ to 122 ℉)
Air pressure	700 hPa to 1060 hPa
Altitude range	-400 m to 3.000 m

Relative humidity 30 % to 95 % (without condensation)

Warranty:3 years with 3 years CMC

57. Ventilator

Equipment Specifications for Ventilator-I.C.U

UNSPSC Code: 42272205
ECRI Code: 17-429

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	ICU ventilators provide artificial respiratory support to the critical patients in the Intensive Care Units.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by	Bidders Deviation if

		bidder	any
2.1	Microprocessor Controlled ventilator with integrated facility for Ventilation monitoring suitable for New born to adult ventilation.		
2.2	Demostration of the equipment when ever required		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Imported hinged arm holder for holding the circuit		
3.2	Colored TFT screen, 10 Inch or more		
3.3	Facility to measure and display a) (line deleted) b) min 2 waves- Pressure and Time, Volume and Time and Flow and Time. c) min 2 loops- P-V, F-V, P-F with facility of saving of min 2 Loops for reference. d) Graphic display to have automatic scaling facility for waves e) Status indicator for Ventilator mode, Battery life, patient data, alarm settings, clock etc		
3.4	Trending facility for minimum 48hours with minimum 5 minutes resolution for recent 24 hours		
3.5	Automatic compliance & Leakage compensation for circuit and ET tube		
3.6	Following settings for all age groups. a) Tidal Volume b) Pressure (insp) c) Pressure Ramp d) Respiratory Rate		

	e) SIMV Respiratory Rate f) CPAP/PEEP g) Pressure support h) FIO2 i) Pause Time j)Pressure & Flow Trigger		
3.7	Monitoring of the following parameters a) Airway Pressure (Peak & Mean) b) Tidal volume (Inspired & Expired) c) Minute volume (Inspired and Expired) d) Spontaneous Minute Volume e) Total Frequency f) FIO2 dynamic g) Intrinsic PEEP and PEEPi Volume h) Plateau Pressure i) Resistance & Compliance j) Use selector Alarms for all measured & monitored parameters		
3.8	Modes of ventilation a) Volume controlled b) Pressure Controlled c) Pressure Support d) SIMV (Pressure Control and volume control) with pressure support e) CPAP/PEEP f) Inverse Ratio Ventilation g) Advanced mode like pressure controlled volume guaranteed h) Non Invasive ventilation i) APRV or equivalent		
3.9	Apnea /backup ventilation		
3.10	Expiratory block should be autoclavable and no routine calibration required or with expiratory autoclavable filter .In case of filter ,min 10 nb should be provided with the machine.		
3.11	Should have the ability to calculate / Procedure a. Intrinsic Peep & Intrinsic PEEP Volume b. Occlusion Pressure		

	c. Spontaneous Breathing trial d. Facility to calculate lower and upper inflection point		
3.12	Nebuliser with capability to deliver particle size of < 3 micron & to be used in both Off and On line		
3.13	Automatic Patient Detection facility preferable		
3.14	Medical Air Compressor. a) Imported stand alone Medical Air compressor from same manufacturer pf ventilator. b) Snap fit with the Ventilator module to provide an oil free Medical air . c) Peak output flow should be minimum 160 LPM. d) Air quality should comply with ISO compressed air purity class. e) Medical Air Compressor should automatically activate in the event of wall air supply loss. f) Replacement of internal filters should be performed without removing the compressor g) Should have washable air filter.		
3.15	Technical Specifications for reusable face mask & nasal mask. Reusable face & nasal mask with textured dual flap silicone cushion flap for easy fit. Removable forehead support and pad to match the angle of patient's forehead Stability Selector for easy fit and angle. Ball & Socket headgear attachments. Should be autoclavable.		
3.16	Battery back up for minimum 30 minutes (for ventilator)		
3.17	RS 323C interface for communications with networked devices.		
3.18	Automatic patient detection facility preferable.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	ICU Ventilator - 01		
4.2	Adult and Paediatric autoclavable silicone breathing circuits -02 ea		
4.3	Reusable Masks (Small, Medium, Large) with each machine.- 02 sets ea		
4.4	Medical Air Compressor.		
4.5	Humidifier -Servo controlled with digital monitoring of inspired gas temperature complete with internal heating wire-01		
4.6	Filter paper for humidifier for 100 uses-01		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50 deg C and relative humidity of 15-90%		
5.2	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		
5.3	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz		
6.2	Resettable overcurrent breaker shall be fitted for protection		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Certified to be compliant with ANS/IEC60601.2.12-01 Medical Electrical Equipment—Part 2-12; Particular Requirements for the Safety of Lung Ventilators—Critical Care Ventilators		
7.2	Should be FDA and European CE approved product		
7.3	Certified to be compliant with ISO-7767 for Oxygen monitoring.		
7.4	Should meet IEC 529 Level 3 (IP3X)(spraying water) for enclosure protection , water ingress.		
7.5	Demonstration of quoted equipment whenever asked for.		

7.6	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
7.7	Comprehensive warranty for 3 years and provision of CMC for next 3 years.		
7.8	Back to back warranty to be taken by the supplier from the principal to supply spares for a minimum period 10 years.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	Certificate of calibration and inspection from factory.		
8.2	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		
8.3	User Manual in English		
8.4	Service manual in English		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		
8.6	List of important spare parts and accessories with their part number and costing.		
8.7	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet.Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.		

8.8	Must submit user list and performance report within last 3 years from major hospitals.		
8.9	Back to back comprehensive warranty to be taken by the supplier from the principal to supply spares for minimum 10 years.		

58.Ventilator Neonatal

Equipment Specifications for Ventilator-Paediatric/ Neonatal

UNSPSC Code: 42272206
ECRI Code: 14-361

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Paediatric/Infant Ventilators provide artificial respiration support to infants and neonates in ICU/Wards.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any

2.1	The Infant Paediatric ventilator should be easy to operate and should incorporate safety alarms and backup ventilation .		
2.2	Microprocessor Controlled integrated suitable for neonate and child ventilation.		
2.3	Demostration of the equipment whenever asked for		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Should have not less than 10 inch colored TFT screen for monitoring of the ventilation parameters, curves and loops		
3.2	Automatic compliance & Leakage compensation for circuit and ET tube		
3.3	Should have the facilities for following setting for neonate to child a) Tidal Volume b) Flow Pattern c) Inspiration Plateau d) Pressure ramp e) SIMV Rate f) CPAP/PEEP g) Pressure Support h) FiO2 i) Pause Time j) Inspiration trigger sensitivity to flow & pressure k) Base Flow l) Sensitivity for cycling to expiration		
3.4	Should have the capability of monitoring of the following parameters, a) Airway Pressure b) Expired tidal Volume		

	c) Minute Volume d) Spontaneous Minute Volume e) Total Frequency f) Fio2 g) Auto PEEP h) Rapid Shallow Breathing Index i) Plateau Pressure j) Inspiratory & Expiratory Resistance k) Static Compliance l) Imposed Work of Breathing m) Peak, Plateau and mean airway pressure Plateau Pressure		
3.5	Should have the Alarms (User Selector) for all the measured and monitored parameters.		
3.6	Should have the following Modes of ventilations, a) Volume controlled b) Pressure Controlled c) Pressure Support d) SIMV (Pressure Control and volume control) with pressure support. e) CPAP/PEEP (0 – 30 CM H20) f) Auto mode /Auto flow preferable g) PRVC h) Biphasic preferable		
3.7	Sensors should be automatically calibrated every time it is switched on		
3.8	Should have the ability to calculate a) Intrinsic Peep b) Occlusion Pressure c) Negative Inspiratory force		
3.9	Medical Air Compressor a) Imported stand alone Medical Air compressor from the same manufacturer (of ventilator) b) Snap fit with the Ventilator module to provide an oil free Medical air . c) Peak output flow should be minimum 160 LPM. d) Air quality should comply with ISO compressed air purity class.		

	e) Medical Air Compressor should automatically activate in the event of wall air supply loss. f) Replacement of internal filters should be performed without removing the compressor g) Should have washable air filter.		
3.10	Nebuliser with capability to deliver particle size of < 3 micron & to be used in both Off and On line		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Infant Paediatric Ventilator-01		
4.2	Humidifier -Servo controlled with digital monitoring of inspired gas temperature complete with internal heating wire-01		
4.3	Nebulizer compatible with ventilator-01		
4.4	Medical Air Compressor		
4.5	Air Hose-01		
4.6	Oxygen Hose-01		
4.7	Paediatric autoclavable/reusable silicone breathing circuit-02		
4.8	Infant autoclavable/reusable silicone breathing circuit-02		
4.9	Filter paper for humidifier for 100 uses-01		
4.10	Non corrosive trolley and hinged arm: 01		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		
5.3	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Resettable overcurrent breaker shall be fitted for protection		
6.3	Suitable Servo controlled Stabilizer/CVT		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by	Bidders Deviation if

		bidder	any
7.1	Certified to be compliant with ANS/IEC60601.2.12-01 Medical Electrical Equipment—Part 2-12; Particular Requirements for the Safety of Lung Ventilators—Critical Care Ventilators		
7.2	Should be FDA , CE,UL or BIS approved product		
7.3	Manufacturer should have ISO certification for quality standards.		
7.4	Should meet IEC 529 Level 3 (IP3X)(spraying water) for enclosure protection , water ingress.		
7.5	Certified to be compliant with ISO-7767 for Oxygen monitoring.		
7.6	Comprehensive warranty for 3 years and provision of AMC for next 3 years.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	Certificate of calibration and inspection from factory.		
8.2	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		
8.3	List of important spare parts and accessories with their part number and costing		
8.4	Service manual in English		
8.5	User manual in English		

8.6	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		
8.7	Must submit user list and performance report within last 3 years from major hospitals.		

59.Wall mounted B.P. Apparatus- The offered B.P. instruments should be in accordance with the international quality standards.
The BP instrument should be of superior quality. The product should be European CE or USFDA approved with 3 years warranty.

Type: Blood Pressure Monitor fitted on wall i.e. ·
·
·
·

Accuracy: +/-3mmHg
Sub-division: 2mmHg
Dial-type, mercury-free manometer
Measure scope: 0-300mmHg

60.Washing Machine

Washing Machine:

Main Features	**Wash Load (Kgs)**	6.5
	Type of Washing Machine	Fully Automatic
	Control Type	JogDial
	Loading Type	Front
	Wash Method ? Close Meaning: Wash method refers to the various movements used by different washing machines to wash the clothes during their wash cycles. There are different wash methods: (1) agitator, (2) pulsator, (3) tumble (4) turbo drum, (5) pulgitator, etc.	Tumble

	Manufacturing companies try to replicate the movements of manual (hand) wash as closely as possible when designing their wash mechanisms. It helps get clothes cleaner.	

Wash, smart digital display, slanted control panel, minimum noise and vibration, memory backup, 5-step water temperature control, water temperature 0-95℃, error indicator, with wash programs, delay start (up to 24 hours), 5 mode spin control (including no spin and 400/600/800/1000 rpm), anti foam control, spin cancellation,

approx. dimensions (W×D×H) (598×550×844)

Power requirement 220 V, Energy efficient A rating

Voltage (Volts)	220/240
Power Consumption (Wash Motor Cold) (Watts)	2000
Power Consumption (Wash Motor Hot) (Watts)	2400
Power Consumption (Spin Motor) (Watts)	500

Loading : Top loading heavy duty

After Sales Service	
Warranty Period (3 years)3years CMC	3 years Warranty+3 Years CMC

61. Washing Machine Drayer

Industrial Grade Drying Machine:
· Capacity of drying 7-10 kg clothe/cycle.
· Capable of running for multiple cycles/day.
· Load detection should be automated.
· Should have 100% drying effect.
· Should be uniform drying of clothes.
· Should be odor free drying.
· Time adjustment is self-mechanized.
· Low noise
· Should get high performance per watt.
Power supply:

a. Power input should be 220-240VAc, 50Hz.
b. b. Voltage corrector/ stabilizer of appropriate ratings meeting ISI specifications(input 160-260V and output 220-240V and 50Hz).

c. Standards, safety and training:
a. It should be a safety certified approved product.

b. Manufactures/ suppliers should have ISO certificate to Quality Standard.

Documentation:

a. User/Technical/Maintenance manuals to be supplied should be in English.
b. b. List of important spare parts and accessories with their part number and costing

Maintenance and Warranty:

a. Training and installation at end-user site. Proposal for full warranty up to three years from the date of installation properly, covering on-call technical interventions, spare parts and travel. After warranty of three years is over the bidder must cover for three years under CMC.

52. Waste Disposal - Bin / drums- Waste Disposal - Bin / drums /Color coded bins set of both big and small to be quoted in assorted colours
Bins BIG SIZE AS PER Following Specs

SPECIFICATION OF : Plastic Bins (Red Big)

					Appendix / S-4/NS-11
MATERIAL			HDPE/LLDPE bins made from virgin polymer material, thickness of bin shall be minimum 2.5 mm (+/- 0.2 mm) with foot operated lid and handles for lifting, also refer IS 3730 : 1988 for details; Lid mechanism shall be of SS material only		
	Plastic Bins				
CLASS & SIZES			BIG (25 Lt.)		

DIMENSIONS			HDPE bucket of Circular Top of about 340mm (+/- 10mm) without collar & circular Bottom of about 280mm (+/- 10mm), Height 360mm (+/-10mm), with suitably designed foot operated lid and proper handles for lifting the bin. SS pipe/ wire rod used for cage, handle and for operation of lid shall not be less than 4mm dia SS rod. SS Square (hollow pipe) 2 Nos. of 20x20 mm shall be provided at the bottom for steady placement of the bin.		
			SS pipe / wire rod shall be not less than 4 mm dia.		
WORKMANSHIP & FINISH					
			As per IS 3730 : 1988 for HDPE/LLDPE bin		
			SS parts shall be smooth finished, proper rubber studs shall be provided on the paddle and both ends of 20mm SS square hollow pipe		
REQUIREMENTS			Lid of the Bin shall be foot operated and SS bottom rod of foot operated mechanism shall be minimum 8 mm. It shall close to secure infected contents immediately upon releasing pressure. Other requirements as per IS 3730 : 1988		
			Bin shall be preprinted as per requirements of Bio Medical Waste Management Rules - 1998 (amended till date)		
Material used shall preferably match all requirements under relevant IS code					
Ready to use					
Produced by an ISO 9001-2000 Certified Unit					
MARKING			Each Bin shall be Marked "Rajasthan Health Systems Development Project, Govt. of Rajasthan"		
			Properly labeled Bin to indicate -		
			Product Name, Produced by, Address		
			Date of Manufacturing, Size		
			Batch Number		
			Also refer IS 3730 : 1988		
PACKING & PACKAGING			Each Bin shall be packed in poly film / bag to reach destination securely		
			Also refer IS 3730 : 1988		

SPECIFICATION OF : Plastic Bins (Black Big)

					Appendix / S-4/NS-12
MATERIAL			HDPE/LLDPE bins made from virgin polymer material, thickness of bin shall be minimum 2.5 mm (+/- 0.2 mm) with foot operated lid and handles for lifting, also refer IS 3730 : 1988 for details; Lid mechanism shall be of SS material only		
	Plastic Bins				
CLASS & SIZES			BIG (25 Lt.)		
DIMENSIONS			HDPE bucket of Circular Top of about 340mm (+/- 10mm) without collar & circular Bottom of about 280mm (+/- 10mm), Height 360mm (+/-10mm), with suitably designed foot operated lid and proper handles for lifting the bin. SS pipe/ wire rod used for cage, handle and for operation of lid shall not be less than 4mm dia SS rod. SS Square (hollow pipe) 2 Nos. of 20x20 mm shall be provided at the bottom for steady placement of the bin.		
			SS pipe / wire rod shall be not less than 4 mm dia.		
WORKMANSHIP & FINISH					
			As per IS 3730 : 1988 for HDPE/LLDPE bin		
			SS parts shall be smooth finished and powder coated, proper rubber studs shall be provided on the paddle and both ends of 20mm SS square hollow pipe		
REQUIREMENTS			Lid of the Bin shall be foot operated and SS bottom rod of foot operated mechanism shall be minimum 8 mm. It shall close to secure infected contents immediately upon releasing pressure. Other requirements as per IS 3730 : 1988		

			Bin shall be preprinted as per requirements of Bio Medical Waste Management Rules - 1998 (amended till date)		
Material used shall preferably match all requirements under relevant IS code					
Ready to use					
Produced by an ISO 9001-2000 Certified Unit					
MARKING			Each Bin shall be Marked "Rajasthan Health Systems Development Project, Govt. of Rajasthan"		
			Properly labeled Bin to indicate -		
			Product Name, Produced by, Address		
			Date of Manufacturing, Size		
			Batch Number		
			Also refer IS 3730 : 1988		
PACKING & PACKAGING			Each Bin shall be packed in poly film / bag to reach destination securely		
			Also refer IS 3730 : 1988		

SPECIFICATION OF : Plastic Bins (Yellow Big)

					Appendix / S-4/NS-13
MATERIAL			HDPE/LLDPE bins made from virgin polymer material, thickness of bin shall be minimum 2.5 mm (+/- 0.2 mm) with foot operated lid and handles for lifting, also refer IS 3730 : 1988 for details; Lid mechanism shall be of SS material only		
	Plastic Bins				
CLASS & SIZES			BIG (25 Lt.)		

DIMENSIONS			HDPE bucket of Circular Top of about 340mm (+/- 10mm) without collar & circular Bottom of about 280mm (+/- 10mm), Height 360mm (+/-10mm), with suitably designed foot operated lid and proper handles for lifting the bin. SS pipe/ wire rod used for cage, handle and for operation of lid shall not be less than 4mm dia SS rod. SS Square (hollow pipe) 2 Nos. of 20x20 mm shall be provided at the bottom for steady placement of the bin.		
			SS pipe / wire rod shall be not less than 4 mm dia.		
WORKMANSHIP & FINISH					
			As per IS 3730 : 1988 for HDPE/LLDPE bin		
			SS parts shall be smooth finished and powder coated, proper rubber studs shall be provided on the paddle and both ends of 20mm SS square hollow pipe		
REQUIREMENTS			Lid of the Bin shall be foot operated and SS bottom rod of foot operated mechanism shall be minimum 8 mm. It shall close to secure infected contents immediately upon releasing pressure. Other requirements as per IS 3730 : 1988		
			Bin shall be preprinted as per requirements of Bio Medical Waste Management Rules - 1998 (amended till date)		
Material used shall preferably match all requirements under relevant IS code					
Ready to use					
Produced by an ISO 9001-2000 Certified Unit					
MARKING			Each Bin shall be Marked "Rajasthan Health Systems Development Project, Govt. of Rajasthan"		
			Properly labeled Bin to indicate -		
			Product Name, Produced by, Address		
			Date of Manufacturing, Size		
			Batch Number		
			Also refer IS 3730 : 1988		
PACKING & PACKAGING			Each Bin shall be packed in poly film / bag to reach destination securely		

			Also refer IS 3730 : 1988		

SPECIFICATION OF : Plastic Bins (Blue Big)

					Appendix / S-4/NS-14
MATERIAL			HDPE/LLDPE bins made from virgin polymer material, thickness of bin shall be minimum 2.5 mm (+/- 0.2 mm) with foot operated lid and handles for lifting, also refer IS 3730 : 1988 for details; Lid mechanism shall be of SS material only		
	Plastic Bins				
CLASS & SIZES			BIG (25 Lt.)		
DIMENSIONS			HDPE bucket of Circular Top of about 340mm (+/- 10mm) without collar & circular Bottom of about 280mm (+/- 10mm), Height 360mm (+/-10mm), with suitably designed foot operated lid and proper handles for lifting the bin. SS pipe/ wire rod used for cage, handle and for operation of lid shall not be less than 4mm dia SS rod. SS Square (hollow pipe) 2 Nos. of 20x20 mm shall be provided at the bottom for steady placement of the bin.		
			SS pipe / wire rod shall be not less than 4 mm dia.		
WORKMANSHIP & FINISH					
			As per IS 3730 : 1988 for HDPE/LLDPE bin		
			SS parts shall be smooth finished and powder coated, proper rubber studs shall be provided on the paddle and both ends of 20mm SS square hollow pipe		
REQUIREMENTS			Lid of the Bin shall be foot operated and SS bottom rod of foot operated mechanism shall be minimum 8 mm. It shall close to secure infected contents immediately upon releasing pressure. Other requirements as per IS 3730 : 1988		

			Bin shall be preprinted as per requirements of Bio Medical Waste Management Rules - 1998 (amended till date)		
Material used shall preferably match all requirements under relevant IS code					
Ready to use					
Produced by an ISO 9001-2000 Certified Unit					
MARKING			Each Bin shall be Marked "Rajasthan Health Systems Development Project, Govt. of Rajasthan"		
			Properly labeled Bin to indicate -		
			Product Name, Produced by, Address		
			Date of Manufacturing, Size		
			Batch Number		
			Also refer IS 3730 : 1988		
PACKING & PACKAGING			Each Bin shall be packed in poly film / bag to reach destination securely		
			Also refer IS 3730 : 1988		

BINS SMALL AS PER FOLLOWING SPECIFICATIONS

SPECIFICATION OF : Plastic Bins (Red Small)

					Appendix / S-4/NS-11
MATERIAL			HDPE/LLDPE bins made from virgin polymer material, thickness of bin shall be minimum 2.5 mm (+/- 0.2 mm) with foot operated lid and handles for lifting, also refer IS 3730 : 1988 for details; Lid mechanism shall be of SS material only		
	Plastic Bins				
CLASS & SIZES			SMALL (15 Lt.)		

DIMENSIONS			HDPE bucket of Circular Top of about 285mm (+/- 10mm) without collar & circular Bottom of about 230mm (+/- 10mm), Height 290mm (+/-10mm), with suitably designed foot operated lid and proper handles for lifting the bin. SS pipe/ wire rod used for cage, handle and for operation of lid shall not be less than 4mm dia SS rod. SS Square (hollow pipe) 2 Nos. of 20x20 mm shall be provided at the bottom for steady placement of the bin.		
			SS pipe / wire rod shall be not less than 4 mm dia.		
WORKMANSHIP & FINISH					
			As per IS 3730 : 1988 for HDPE/LLDPE bin		
			SS parts shall be smooth finished, proper rubber studs shall be provided on the paddle and both ends of 20mm SS square hollow pipe		
REQUIREMENTS			Lid of the Bin shall be foot operated and SS bottom rod of foot operated mechanism shall be minimum 8 mm. It shall close to secure infected contents immediately upon releasing pressure. Other requirements as per IS 3730 : 1988		
			Bin shall be preprinted as per requirements of Bio Medical Waste Management Rules - 1998 (amended till date)		
Material used shall preferably match all requirements under relevant IS code					
Ready to use					
MARKING			Each Bin shall be Marked "Rajasthan Health Systems Development Project, Govt. of Rajasthan"		
			Properly labeled Bin to indicate -		
			Product Name, Produced by, Address		
			Date of Manufacturing, Size		
			Batch Number		
			Also refer IS 3730 : 1988		

PACKING & PACKAGING			Each Bin shall be packed in poly film / bag to reach destination securely		
			Also refer IS 3730 : 1988		

SPECIFICATION OF : Plastic Bins (Black Small)

					Appendix / S-4/NS-12
MATERIAL			HDPE/LLDPE bins made from virgin polymer material, thickness of bin shall be minimum 2.5 mm (+/- 0.2 mm) with foot operated lid and handles for lifting, also refer IS 3730 : 1988 for details; Lid mechanism shall be of SS material only		
	Plastic Bins				
CLASS & SIZES			SMALL (15 Lt.)		
DIMENSIONS			HDPE bucket of Circular Top of about 285mm (+/- 10mm) without collar & circular Bottom of about 230mm (+/- 10mm), Height 290mm (+/-10mm), with suitably designed foot operated lid and proper handles for lifting the bin. SS pipe/ wire rod used for cage, handle and for operation of lid shall not be less than 4mm dia SS rod. SS Square (hollow pipe) 2 Nos. of 20x20 mm shall be provided at the bottom for steady placement of the bin.		
			SS pipe / wire rod shall be not less than 4 mm dia.		
WORKMANSHIP & FINISH					
			As per IS 3730 : 1988 for HDPE/LLDPE bin		
			SS parts shall be smooth finished, proper rubber studs shall be provided on the paddle and both ends of 20mm SS square hollow pipe		

REQUIREMENTS			Lid of the Bin shall be foot operated and SS bottom rod of foot operated mechanism shall be minimum 8 mm. It shall close to secure infected contents immediately upon releasing pressure. Other requirements as per IS 3730 : 1988		
			Bin shall be preprinted as per requirements of Bio Medical Waste Management Rules - 1998 (amended till date)		
Material used shall preferably match all requirements under relevant IS code					
Ready to use					
MARKING			Each Bin shall be Marked "Rajasthan Health Systems Development Project, Govt. of Rajasthan"		
			Properly labeled Bin to indicate -		
			Product Name, Produced by, Address		
			Date of Manufacturing, Size		
			Batch Number		
			Also refer IS 3730 : 1988		
PACKING & PACKAGING			Each Bin shall be packed in poly film / bag to reach destination securely		
			Also refer IS 3730 : 1988		

SPECIFICATION OF : Plastic Bins (Yellow Small)

					Appendix / S-4/NS-13
MATERIAL			HDPE/LLDPE bins made from virgin polymer material, thickness of bin shall be minimum 2.5 mm (+/- 0.2 mm) with foot operated lid and handles for lifting, also refer IS 3730 : 1988 for details; Lid mechanism shall be of SS material only		
	Plastic Bins				

CLASS & SIZES			SMALL (15 Lt.)		
DIMENSIONS			HDPE bucket of Circular Top of about 285mm (+/- 10mm) without collar & circular Bottom of about 230mm (+/- 10mm), Height 290mm (+/-10mm), with suitably designed foot operated lid and proper handles for lifting the bin. SS pipe/ wire rod used for cage, handle and for operation of lid shall not be less than 4mm dia SS rod. SS Square (hollow pipe) 2 Nos. of 20x20 mm shall be provided at the bottom for steady placement of the bin.		
			SS pipe / wire rod shall be not less than 4 mm dia.		
WORKMANSHIP & FINISH					
			As per IS 3730 : 1988 for HDPE/LLDPE bin		
			SS parts shall be smooth finished, proper rubber studs shall be provided on the paddle and both ends of 20mm SS square hollow pipe		
REQUIREMENTS			Lid of the Bin shall be foot operated and SS bottom rod of foot operated mechanism shall be minimum 8 mm. It shall close to secure infected contents immediately upon releasing pressure. Other requirements as per IS 3730 : 1988		
			Bin shall be preprinted as per requirements of Bio Medical Waste Management Rules - 1998 (amended till date)		
Material used shall preferably match all requirements under relevant IS code					
Ready to use					
MARKING			Each Bin shall be Marked "Rajasthan Health Systems Development Project, Govt. of Rajasthan"		
			Properly labeled Bin to indicate -		
			Product Name, Produced by, Address		

			Date of Manufacturing, Size		
			Batch Number		
			Also refer IS 3730 : 1988		
PACKING & PACKAGING			Each Bin shall be packed in poly film / bag to reach destination securely		
			Also refer IS 3730 : 1988		

SPECIFICATION OF : Plastic Bins (Blue Small)

					Appendix / S-4/NS-14
MATERIAL			HDPE/LLDPE bins made from virgin polymer material, thickness of bin shall be minimum 2.5 mm (+/- 0.2 mm) with foot operated lid and handles for lifting, also refer IS 3730 : 1988 for details; Lid mechanism shall be of SS material only		
	Plastic Bins				
CLASS & SIZES			SMALL (15 Lt.)		
DIMENSIONS			HDPE bucket of Circular Top of about 285mm (+/- 10mm) without collar & circular Bottom of about 230mm (+/- 10mm), Height 290mm (+/-10mm), with suitably designed foot operated lid and proper handles for lifting the bin. SS pipe/ wire rod used for cage, handle and for operation of lid shall not be less than 4mm dia SS rod. SS Square (hollow pipe) 2 Nos. of 20x20 mm shall be provided at the bottom for steady placement of the bin.		
			SS pipe / wire rod shall be not less than 4 mm dia.		
WORKMANSHIP & FINISH					
			As per IS 3730 : 1988 for HDPE/LLDPE bin		

			SS parts shall be smooth finished, proper rubber studs shall be provided on the paddle and both ends of 20mm SS square hollow pipe		
REQUIREMENTS			Lid of the Bin shall be foot operated and SS bottom rod of foot operated mechanism shall be minimum 8 mm. It shall close to secure infected contents immediately upon releasing pressure. Other requirements as per IS 3730 : 1988		
			Bin shall be preprinted as per requirements of Bio Medical Waste Management Rules - 1998 (amended till date)		
Material used shall preferably match all requirements under relevant IS code					
Ready to use					
MARKING			Each Bin shall be Marked "Rajasthan Health Systems Development Project, Govt. of Rajasthan"		
			Properly labeled Bin to indicate -		
			Product Name, Produced by, Address		
			Date of Manufacturing, Size		
			Batch Number		
			Also refer IS 3730 : 1988		
PACKING & PACKAGING			Each Bin shall be packed in poly film / bag to reach destination securely		
			Also refer IS 3730 : 1988		

SHARPS BINS

SPECIFICATION OF : Plastic Sharps Bins (for Disinfection)

					Appendix / S-4/NS-19
MATERIAL			HDPE/LLDPE bins made from virgin polymer material, thickness of bin shall be minimum 2.5 mm (+/- 0.2 mm) also refer IS 3730 : 1988 for details, with foot operated lid and handles for lifting & lid mechanism shall be of SS material only		
	Plastic Bins				
CLASS & SIZES			Outer Bin of min. 25 lt. volume with matching inner bin of about 20 lt. volume having perforations in the side wall and bottom (holes of about 2-3 mm size), both having matching top diameters. Outer bin shall be of blue colour and inner bin shall be of white colour		
DIMENSIONS			Sizes as per standard HDPE/ LLDPE buckets available in the market, with suitably designed foot operated lid and proper handles for lifting the bin; inner perforated bin shall also have collar holds to pull out / replace the bin securely		
			SS pipe / wire rod used for cage, handle and lid operation shall not be less than 4 mm dia. SS Rod. 2 No. 20 x 20 mm SS Square (hollow pipe) shall be provided at the bottom for smooth and steady placement of the bin.		
WORKMANSHIP & FINISH			As per IS 3730 : 1988 for HDPE/ LLDPE bin		
			SS parts shall be smooth finished, proper Rubber studs shall be provided on the paddle and both ends of 20 mm square hollow pipe.		
REQUIREMENTS			Lid of the Bin shall be foot operated and SS bottom rod of foot operated mechanism shall be minimum 8mm.It shall close to secure infected contents immediately upon releasing pressure. Other requirements as per IS 3730 : 1988		
			Bin shall be preprinted as per requirements of Bio Medical Waste Management Rules - 1998 (amended till date)		
Material sheet used shall preferably match all requirements under relevant IS code					
Ready to use					

Produced by an ISO 9001-2000 Certified Unit					
MARKING			Outer Bin shall be Marked "Rajasthan Health Systems Development Project, Govt. of Rajasthan"		
			Properly labeled Bin to indicate -		
			Product Name, Produced by, Address		
			Date of Manufacturing, Size, Color (White inner & Blue outer bin)		
			Batch Number		
			Also refer IS 3730 : 1988		
PACKING & PACKAGING			Each Bin shall be packed in poly film / bag to reach destination securely		
			Also refer IS 3730 : 1988		

63. Drinking Water cooler with RO

Cooler fitted with RO: Brand:

Type		Storage
Capacity	**Storage Capacity (ltrs)**	150 ltrs approx.
	Cooling Capacity (ltrs/hr)	150 ltrs
	No. of cold water outlets	2

	Storage Capacity(ltrs)	101 ltr and more
Refrigerant		CFC-Free refrigerant ensures no damage to the environment
Insulation	In-situ PUF insulation	ensures that water remains cool for a longer period in case of power failure and hence saves power
Compressor	High Energy Efficient Compressor	Hermetic type with suction gas cooled motor, equipped with overload protector
Condenser fan		Propeller type (Quiet)
Thermostat		Automatically controls temperature
Water connection through RO purifier		3m to 12m head. Use pressure reducing valve, if the water head is higher than 12m
	Inlet	12.7 mm BSP connection
	Outlet	25.4 and 12.7 mm BSP connection
Power connection		5 amps 3-pin plug with proper earth connection or of suitable rating
Power supply		230 Volts ± 10%, 50 Hz, single phase
Maximum Current (amps)		6.8

warranty	3year s Warranty with 3 years CMC
Service	Local Service network

Warranty: Both Water cooler & RO to be under 3 years warrantee & CMC contract form with charges from Year 4-6

64. Water filter - Reverse Osmosis

TRANSPARENT COVER WITH WATER LEVEL INDICATOR

DOUBLE PURIFICATION BY RO + UV + UF WITH TDS CONTROLLER

SHOULD REMOVE DISSOLVED IMPURITIES WHILE RETAINING ESSENTIAL MINERALS

CERTIFICATIONS LIKE NSF or EQUIVALENT BE ENCLOSED

COMPUTER CONTROLLED OPERATION WITH FILTER CHANGE AND UV FAIL ALARMS

HIGH POWER 11W UV LAMP FOR COMPLETE DEACTIVATION OF HARMFUL MICROORGANISMS

Should be fully Automatic with AUTO-START AND AUTO-OFF

BUILT-IN SMPS THAT SUPPORTS WIDE RANGE OF INPUT VOLTAGE (100-300V AC)

RO membrane should be of latest technology

Auto	on and off controls
Operating Power	230v(+10% to –10%) at 50 Hz
Warrantee	3 years warrantee

Warranty Terms: 3 years **warrantee & CMC contract form with charges from Year 4-6**

65.Air-Oxygen Blender

- Primary Outlet Flow Range-3 - 30 L/min (With supply pressures at 50 psi (3.4 bar) with BLEED closed
-
- Auxiliary Outlet Flow Range - 0 - 30 L/min (With supply pressures at 50 psi (3.4 bar) with BLEED closed

Bleed Flow 3 L/min or less at 50 psi (3.4)

- Maximum
- Combined Flow (All Outlets) ≥ 30 L/min
- Bypass Flow (Loss of Air or Oxygen Supply) ≥ 45 L/min
- Bypass Alarm Activation
    - 50 psi(3.45 bar)
    - 18 - 22 psi
    - 1.2 - 1.5 bar
- 60 psi(4.14 bar)
- 16 -24 psi
- 1.1 - 1.65 bar

- Alarm Reset: When pressure differential is 6 psi (0.4 bar) or less
- Alarm Sound Level: ≥ to 80 db at 1 ft (0.3 m)
- Oxygen Concentration Adjustment Range: 21 - 100%
- Gas Supply Pressure: 30 - 75 psi (2.1 - 5.2 bar) Air and Oxygen within 10 psi (0.69 bar) of each other
- Mixed Gas Stability: ± 1% Oxygen
- Connection Types: DISS Type - Air & Oxygen Inlets & Outlets and / or NIST Type - Air & Oxygen Inlets
- Dimensions:(without fittings) Depth: 4.9 in (12.5 cm) Width: 2.3 in (5.7 cm) Height: 4.1 in (10.4 cm)
- Weight: Unit Weight: 2.29 lbs (1.04 kg)
- Shipping Weight: 2.95 lbs (1.34 kg)
- Operating Temperature Range: 59℉ to 104℉ (15℃ to 40℃)
- Transport / Storage Requirements:
    - Temperature Range: -10℉ to 140℉ (-23℃ to 60℃)
    - Humidity: Max 95% Noncondensing
- FI0² Accuracy: ± 3% of full scale
- Pressure Drop:
    - Low Flow: ≤ 2 psi (0.14 bar) at inlet pressure from 30 - 90 psi (2.1 - 6.2 bar) and at 10 L/min flow rate at 60% FI0²
    - High Flow: ≤ 3 psi (0.21 bar) at inlet pressure from 30 - 90 psi (2.1 - 6.2 bar) and at 30 L/min flow rate at 60% FI0²
    - The Air-Oxygen Blender has been cleaned for Oxygen Service prior to delivery.
    - The Air-Oxygen Blender reverse gas flow complies with clause 6 of ISO 11195.
    - Analyzer should comply with ISO 21647.
- Dryness and Composition for inlet gases:
    - Air: Medical Air supply should meet the requirements of ANSI Z86.1 - 1973 commodity specification for Air, type 1 grade D or better.
    - Oxygen: Oxygen supply must meet all requirements of USP Medical Grade Oxygen.
    - ONLY for CE requirements: Both inlets should remain 10℉ (5.55℃) or more below the lowest temperature to which the air distribution system equipment is exposed. At a temperature of 25℉(-3.9℃) and a pressur e of 90 psi (6.33 kg/cm²) this equates to 2000 mg/m³.
- Dimensions (Without Fittings):
    - Depth: 4.92 in(12.5cm)
    - Width: 2.25 in(5.7cm)
    - Height: 4.10 in(10.4cm)
- Weight: 2.9 lbs (1.3kg), 3.4 lbs (1.5kg)
- Operating Temperature:
    - 59℉ to 104℉(15℃ to 40℃)

- FiO2 Accuracy: ± 3% of full scale
- Bypass Alarm Activation:
    - 18 - 22 psi (1.2 - 1.5 bar)
- Primary Outlet Flow Range: 3 - 30 L/min 3
- Auxiliary Outlet Flow - Range: 0 - 30 L/min
- Bleed Flow:at 50 psi (3.4 bar) - 3 L/min or less
- Maximum Combined Flow: (all outlets)
    - ≥ 30 L/min
- No. of Primary Outlet Ports: 1/ 3 /1 DISS/ 5 DISS/ Order separately
- No. of Auxiliary Outlet Ports: 1/ 1/ 1 DISS/ 1 DISS/ Order separately
- Inlet Pressure:- 2.1 - 5.2 bar(30 - 75 psi)
- Inlet Fitting: DISS /DISS/ NIST
- Warranty Terms: 3 years **warrantee & CMC contract form with charges from Year 4-6**

66 T piece Resuscitator

Easy to use

The experience, training, concentration and fatigue level of the operator do not affect the pressures delivered.

Flexibility in operation

The neopuff can accept and deliver oxygen concentrations from 21 % to 100 % coming from a flowmeter or a blender. The T- piece circuit can connect to infant resuscitation masks or endotracheal tubes.

Accurate pressure delivery

The fast acting manometer provides constant reassurance of mask seal and delivered PIP and PEEP.

Alternate temporary respiratory support

Consistent PEEP can be delivered to assist with breathing during transport or ventilator circuit change.

Manometer range -10 to 80 cm H2O (mbar)

Manometer accuracy +/- 2.0 % of full scale deflection

Max Pressue Relief @ 8 L/min 5 to 70 cm H2O (mbar)

Factory set @ 40 cm H2O (mbar)

Peak Inspiratory pressure PIP @ 5 L/min 2 to 70 cm H2O (m Bar)

@ 8 L/min 3 to 72 cm H2O (m Bar)

@ 10L/min 4 to 73 cm H2O (m Bar)

@ 15 L/min 3 to 75 cm H2O (m Bar)

Positive end expiratory pressure PEEP @5 L/min 1 to 5 cm H2O (mbar)

@8 L/min 1 to 9 cm H2O (mbar)

@10 L/min 1 to 15 cm H2O (mbar)

@15 L/min 1 to 25 cm H2O (mbar)

Storage temperature range -10 to 50 C (+14 to +122 F), upto 95 % humidity

Operating temperature range -18 to 50 C (-.4 to + 122 F), upto 95% of humidity

Included with Gas supply line, gas inlet adapter, test lung, spare max pressure relief cap, animated user guide(CD) operating instructions and product technical manual.

- Warranty Terms: 3 years **warrantee & CMC contract form with charges from Year 4-6**

67. LED Light Source

Technical Data of led Cold-Light Source :
Lamp: led
Color Temperature: 6000 K

Device type : I/B
Lamp Power :**Equivalent to 300Watt xenon**
Input Power : 400 W
Case Temperature : <55℃
Working Noise : <55DB
Operating Life : **50,000.00 hours**
Outside electrical source: 220V±10%,50Hz
Working Environmental Humidity : 5-32℃
Relative Humidity : <70%

Dims. : standard
Net.Weight. : standard

- Warranty Terms: Standard warranty

68.Neonatal Stethoscope

- Machined Stainless Steel

- Chestpiece Technology - Double sided
- Chestpiece Weight - 40 Gram
- Diaphragm Diameter - 1.31 in / 3.3 cm
- Diaphragm Material - Epoxy/Fiberglass
- Diaphragm Type - Floating Diaphragm
- Eartip Type - Soft Sealing
- Extra Eartips - Yes
- Headset Material - Wide Diameter Aerospace Alloy / Anodized Aluminum
- Length - 28 in / 71 cm
- Model - Pediatric
- Net Weight (approx.) - 105 Gram

- Occupation - Nurse, Pediatrician
- Patient - Infant, Pediatric
- Small Diaphragm Diameter - 1 in / 2.5 cm
- Special Adaptors - No

69Foot Step (for all labour tables & ward beds)

- In 2 stepped preferrably
- Made of Aluminium Metal with stable case(non slippery)
- Dimensions approx:2 ft x 1 ft (bxd) with 6 inch step height to climb up to labour table