सूर्यगढी गाउँपालिका
Suryagadhi Rural Municipality
गाउँ कार्यपालिकाको कार्यालय
Office of Rural Municipal Executive
चोकदे, नुवाकोट (Chokade, Nuwakot)
बागमती प्रदेश, नेपाल (Bagamati Province, Nepal)

फोनः ९८५१३१६२५८
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प.सं. २०८२/०८३
Ref. No. 2082/083
च.नं. ९२
Dispatch No.

मिति २०८३/०१/२८

दररेट पेश गर्ने सम्बन्धी सूचना।

यस गाउँपालिकाको लागि यस आ.व.२०८२/०८३ मा निर्माण सम्पन्न भएका आधारभुत अस्पताल (५,१०,१५) शैया संचालन खर्च बापत आधारभुत अस्पतालको लागि आवश्यक पर्ने देहाय बमोजिमका **औषधि जन्य सामग्रिहरु (Medical equipment)** खरिद गर्नको निम्ति लागत अनुमान तयार गर्ने प्रयोजनको लागि हाल बजारमा चलिरहेको प्रचलित दररेट आवश्यक परेकोले उल्लेखित औषधि जन्य सामग्रिहरुको **(Medical equipment)** दररेट औषधि तथा औषधि जन्य आपुर्ति गर्ने फर्म तथा सप्लायर्सहरुले यो सुचना प्रकाशन भएको मितिले ३ दिन भित्रमा पेश गर्नुहुनको लागि सम्बन्धित सबैमा अनुरोध गरिन्छ। साथै उल्लेखित औषधि जन्य सामग्रीहरुको स्पेसिफिकेशन यसै सुचना साथ संलग्न **(Attached)** गरिएको छ र औषधि जन्य सामानहरुको दररेटहरु पेश गर्दा भ्याट रकम बाहेकको दर रेट उल्लेख गरिदिनुहुनको लागि अनुरोध गरिन्छ।

SN	NAME OF MEDICINE	FORM	SPECIFICATION	Quantity	Rate	Total
1	Suction Machine electric			1		
2	Resuscitation Set			1		
3	ECG Set (12 channel)			1		
4	Trolly, Medicine			1		
5	Patient Monitor (Cardiac monitor) 5 parameter			1		
6	Hydrulic Minor OT table			1		
7	Peri light portable			1		
8	Tongue Depressor			1		
9	Patients monitor 7 parameters			1		
10	Artery Forcep			1		
11	Knee Hammer			1		
12	Needle Holder			1		
13	Otoscope Set			1		
14	Larygoscope Magnifying Rigid (with light source)			1		
15	Scissors			1		
16	Stethescope			1		
17	Spygmomanometer			1		
18	Glucometer			1		
19	Pulse Oxymeter			1		
20	IV Stand ,four hooks			1		
21	Nebulizer			1		
22	Thermometer			1		
23	Electric Needle Destroyer			1		
24	Semi auto- Bio chemistry analyzer			1		

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SN	NAME OF MEDICINE	FORM	SPECIFICATION	Quantity	Rate	Total
25	Incubator			1		
26	Culter (Heamatology analyzer 3 part)			1		
27	Water Bath			1		
28	Patient Bed (Semi Fawlere Bed with Single Crank)			1		
29	Autoclave electric cooker type			1		
30	Portable USG Machine Color doppler			1		
31	Standard Weighing Scale Digital			1		
32	Loose gloves			1		
33	Surgical gloves			1		
34	Double foot (step stainless stel)			1		

शैलेश किरण राई चाम्लिङ
प्रमुख प्रशासकीय अधिकृत

शैलेश किरण राई चाम्लिङ
प्रमुख प्रशासकीय अधिकृत

Water Bath

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Water Bath	**Yes/No**	**Ref Doc Page No.**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Water bath maintains a constant pre-set temperature for treating samples.			
2	**Operational Requirements**			
2.1	General purpose water bath is required.			
3	**System Configuration**			
3.1	Water Bath, complete unit with all standard accessories.			
4	**Technical Specifications**			
4.1	Material: Inner and outer jacket made up MS of approximately 1mm thickness.			
4.2	Capacity: approximately 14 L.			
4.3	Microprocessor controlled programmable, digital display for temperature.			
4.4	Temp. Range: 10 °C to 100 °C accuracy +/- 1 °C.			
5	**Accessories, spares and consumables**			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (EEC Directives) or USFDA approved product certificate.			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10	**Maintenance Service During Warranty Period**			
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	**Installation and Commissioning**			
11.1	Supplier must accomplish proper commissioning of equipment onsite.			
12	**Documentation**			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			
12.3	Certificate of calibration and inspection from factory.			

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	Humidity, etc.			
6.2	Must operate on 220-240V AC.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE or USFDA approved product certificate.			
8	**User Training**			
8.1	Not applicable.			
9	**Warranty**			
9.1	Comprehensive warranty for 1year after acceptance.			
10	**Maintenance Service During Warranty Period**			
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	**Installation, Inspections and Commissioning**			
11.1	Must supply preassembled unit, ready to use.			
12	**Documentation**			
12.1	User (Operating) and Service (Technical/Maintenance) manuals to be supplied in English.			
12.2	Must submit manufacturer Authorization.			

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Suction Machine, Electric

S.N.	Purchaser's Specifications		Bidder's Compliance		
	Suction Machine, Electric		Yes /No	Ref Doc Page No.	Remarks
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	To extract fluid from the body during surgery or emergency treatments.				
2	**Operational Requirements**				
2.1	An electric double jar suction pump for surgical use.				
3	**System Configuration**				
3.1	Suction machine with two bottles and accessories.				
4	**Technical Specifications**				
4.1	It shall be mounted on four robust, fully 360-degree swiveling, antistatic, non-marking grey tires castors, minimum size 75 mm with at least 2 diagonal brakes.				
4.2	Come with suction controller and vacuum gauge / indicator.				
4.3	The pump shall be oil immersed vacuum pump.				
4.4	Come with overflow control valves.				
4.5	Vacuum rate shall be from 0 to not less than 675 mmHg (0.9 bars).				
4.6	Air flow rate shall be at least 20-25 l/min.				
4.7	The pump shall come fitted with twin unbreakable, transparent, autoclavable polycarbonate suction bottles minimum 2 liter each.				
4.8	The bottles shall be incorporated with an automatic suction cut-off mechanism when they become full.				
4.9	The suction bottles shall come with overflow lid.				
4.10	Noise level: not more than 60 dBA.				
4.11	Air discharge from pump shall be filtered by a 0.3-micron bacterial hydrophobic filter.				
5	**Accessories, spares and consumables**				
5.1	**Accessories:** • Electrical cable: 1 minimum 3-meter length • Clear suction tubing: 1 set of 5-meter length • Bacterial filter: 0.3 micron, 10 pcs • Complete connection tubing set: 1 set				
6	**Operating Environment**				
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature,				

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Stethoscope

S.N.	Purchaser's Specifications		Remarks
	Stethoscope		
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
1	**Description of Function**		
1.1	The stethoscope is used for listening to the beating heart of a human, or the lungs. It is also used for listening to the flow of the blood in the surrounding area of the heart.		
2	**Operational Requirements**		
2.1	Dual type stethoscope - Physician's stethoscope.		
3	**System Configuration**		
3.1	• Stethoscope, dual cup/bell • Tubes		
4	**Technical Specifications**		
[illegible]	Dual, cup/bell and diaphragm head		
4.2	Head and ear tube assembly to be made of non-ferrous metal,		
4.3	Tubes to be synthetic material and ear tubes to have shaped plastic cushion ends.		
5	**Accessories, spares and consumables**		
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.		
6	**Operating Environment**		
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.		
7	**Standards and Safety Requirements**		
7.1	Must submit ISO 9001 or ISO 13485:2003/AC: 2007 and European CE Certificate.		
8	**User Training**		
8.1	Not applicable.		
9	**Warranty**		
9.1	Warranty for 1year.		
10	**Maintenance Service During Warranty Period**		
10.1	Standard warranty conditions are applicable.		
11	**Installation and Commissioning**		
11.1	Must supply preassembled unit, ready to use.		
12	**Documentation**		
12.1	User's manual in English		
12.2	Must Submit manufacturer Authorization Letter.		

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Technical Specification of Semi- Automatic Biochemistry Analyzer

S.N.	Purchaser's Requirements	Bidder's Compliance Sheet		
Semi-Automatic Biochemistry Analyzer		**Compliance Yes/No**	**Deviation (if any)**	**Corresponding page no. of data sheet/ catalogue in support of specification**
Name of Bidder:				
Manufacturer:				
Brand:				
Type / Model:				
Country of Origin:				
1	**Description of Function**			
1.1	The Semi-automated Bio-chemistry Analyzer measures biochemical indexes by analyzing blood and other body fluid, then combines with other clinical information, to help diagnose disease, evaluate organ's function.			
2	**Operational Requirements**			
2.1	Semi-automated Chemistry Analyzer with built in software for the calculation and curve plotting. It must accept all types of curve fits like log-linear, Exponential, point to point.			
2.2	Memory for up to 110 chemistries minimum; programmable by the user.			
3	**System Configuration**			
3.1	Semi-automated chemistry Analyzer within built data processor with min 6" LCD Touch display with 800 x 480 pixels resolution, inbuilt thermal printer and RS 232 serial port for bidirectional communication or USB etc.			
4	**Technical Specifications**			
4.1	Light Source: Halogen Lamp or LED			
4.2	**Wavelength Range**: Automatic selection by at least 7 position filter wheels ranging 340 - 630 nm.			
4.3	Photometric Range: 0.1 to 3.0 Absorbance.			
.4	**Calculation Modes:**			
	Multiple standard calibration system will be appreciated.			
4.5	Must have aspiration mode.			
4.6	Aspiration system: Programmable sipping volume from 300-1000 micro liter			
4.7	Temperature control by Peltier element regulated from 25◦C, 30◦C, 37◦C.			
5	**Accessories, spares and consumables**			
5.1	**Accessories:**			
A	Trial kits for 5 different parameters and controls (at least two levels) -1 set			
B	Printer paper: 2 rolls			
C	Light Bulb: 1 nos. (extra)			
D	PM kit: 1 set (extra)			

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5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug.			
7	**Standards and Safety Requirements**			
7.1	This unit shall be certified to meet ISO9001 or ISO 13485 **AND**			
7.2	CE or USFDA approved product certificate.			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Comprehensive warranty for 1 year applicable from the date of installation.			
10	**Maintenance Service During Warranty Period**			
10.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required.			
11	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12	**Documentation**			
12.1	The bidder should submit the original brochure or e-copy.			
12.2	User (Operating)/ Service (Technical / Maintenance) manual in English.			
12.3	Certificate of calibration and inspection from factory.			
12.4	Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted. Failure in doing so may lead to rejection of bid from technical committee.			

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Resuscitation Set

S.N.	Purchaser's Specifications	Remarks
	Resuscitation Set	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	The Basic Resuscitation kit consists of basic equipment to facilitate resuscitation for adult, child and newborn in all types of environments, including emergency situations	
2	**Operational Requirements**	
2.1	The Resuscitation kit for facilitating resuscitation.	
3	**System Configuration**	
3.1	Resuscitation complete set	
4	**Technical Specifications**	
4.1	Self-inflating resuscitator bag, Hand operated, portable, reusable Translucent and made from silicone rubber, capacity ~1600 mL bag volume for adult.	
4.2	Valve- to prevent excessive pressure, which can cause lung damage, with a pressure limiting valve so that the airway pressure does not exceed 4.5 kPa (45 cmH2 O) and can generate an airway pressure of at least 3 kPa (30 cmH2 O)	
4.3	Mask-The mask or facemask is connected to the bag and covers the mouth and nose of the newborn who is being resuscitated Adult mask: ~295 × 127 mm	
5	**Accessories, spares and consumables**	
5.1	**Accessories:** - Resuscitator bag and masks supplied as a complete set along with the non-rebreathing patient valve	
6	**Operating Environment**	
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 **AND**	
7.2	CE or USFDA approved product certificate.	
8	**User Training**	
8.1	Not applicable.	
9	**Warranty**	
9.1	Warranty for 1 year after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	Standard warranty conditions are applicable.	
11	**Installation and Commissioning**	
11.1	Must supply preassembled unit, ready to use.	
12	**Documentation**	
12.1	User's manual shall be supplied in English.	

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Peri Light, Portable

S.N.	Purchaser's Specifications	Remarks
	Peri Light, Portable	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	Peri light for examinations and minor interventions at health facilities.	
2	**Operational Requirements**	
2.1	It shall be portable, flexible Peri light.	
3	**System Configuration**	
3.1	Peri light, portable with all standard accessories.	
4	**Technical Specifications**	
4.1	Portable with sturdy construction.	
4.2	Led Light with approx..5-7 High Quality LED Bulb.	
4.3	Intensity: Approx. 20000-55000 Lux	
4.4	It shall have light stand supported by antistatic castor wheel base with minimum for legs.	
4.5	It shall have flexible arm.	
4.6	It shall have integrated transformer with ON/OFF switch.	
5	**Accessories, spares and consumables**	
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).	
6	**Operating Environment**	
6.1	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.	
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**	
7.2	CE or USFDA approved product certificate.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 1 year after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
11	**Installation and Commissioning**	
11.1	Must supply preassembled unit, ready to use.	
12	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical / Maintenance) manual in English.	

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Technical Specification of Nebulizer

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Nebulizer	**Compliance (Yes/No)**	**Deviation (if any)**	**Corresponding page no. of data sheet/ catalogue in the support of specification.**
	Manufacturer:			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	Nebulizer is a device used to administer medication to people in forms of a liquid moist to the airways. It is commonly used in treating cystic fibrosis, asthma, and other respiratory diseases.			
2	**Operational Requirements**			
2.1	Heavy duty compact Nebulizer is required.			
3.	**System Configuration**			
3.1	Nebulizer complete with all standard accessories			
4	**Technical Specifications**			
4.1	Compact, lightweight, low noise.			
4.2	Durable long-life compressor. Suitable for heavy duty/ institutional (hospital) use, must be able to run uninterruptedly.			
4.3	Maximum pressure: 2.0 to 2.5bars.			
4.4	Must produce particle of size 1-5µm			
4.5	Aluminum cabinet painted with epoxy powder.			
4.6	Piston-type electric aspirator that offers high performance and great durability.			
4.7	Protective thermal cut out relay.			
4.8	Air delivery rate approx. 15l/min.			
4.9	24 hours continuous work for hospital use.			
5	**Accessories, spares and consumables**			
5.1	**Accessories:**			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			

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6.1	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 meter in length.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2016 for Medical Devices **AND**			
7.2	CE or USFDA approved product certificate.			
8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service during Warranty Period**			
9.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
10	**Installation and Commissioning**			
10.1	As per requirement			
11	**Documentation**			
11.1	User (Operating) manual in English.			
11.2	Service (Technical / Maintenance) manual in English.			
11.3	Certificate of calibration and inspection from factory.			

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IV Stand, Four Hooks

S.N.	Purchaser's Specifications	Bidders Compliance		
	IV Stand, Four Hooks	**Compliance (Yes/No)**	**Deviation (if any)**	**Corresponding page no. of data sheet/ catalogue in the support of specification.**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	This IV/saline stand is used for hanging various intravenous items such as blood bag, glucose bottle etc.			
2	**Operational Requirements**			
2.1	Mobile IV stand on 4-5 castors with adjustable height.			
3	**System Configuration**			
3.1	Adjustable IV/saline stand with four hooks and five swivels' castors.			
4	**Technical Specifications**			
4.1	Materials: Base, supports column and hook: 304 grade fully stainless steel. Wheel insert: aluminium Wheel: rubber wheels for smooth drive			
4.2	Base: Heavy base on 4-5 antistatic swivel castors of approx. diameter 50mm.			
4.3	Branches: Square tube Approx. 25x25mm, 600mm width.			
4.4	Support column: solid mechanism to which the upper pole is fixed; the pole has an adjustable height up to 2000mm.			
4.5	Standard sleeve: Diameter 30mm (approx.), height 1000mm (approx.) with stainless steel locking sleeve.			
4.6	Serum rods: Diameter 16mm, height 1000mm. (approx.)			
4.7	Hook: Stainless steel 4 hooks welded together on the top of the serum rod.			
4.8	Load capacity: 12kg (3kg per hook)			
5	**Accessories, spares and consumables**			
4.1	Not applicable.			
6	**Operating Environment**			
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 AND			
7.2	CE or USFDA approved product certificate.			
8	**User Training**			
8.1	Not applicable.			

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9	**Warranty**			
9.1	Warranty for 1 year.			
10	**Maintenance Service During Warranty Period**			
10.1	Standard warranty conditions are applicable.			
11	**Installation and Commissioning**			
11.1	Must supply preassembled unit, ready to use.			
12	**Documentation**			
12.1	Must Submit Manufacture Authorization letter			

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Incubator

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Incubator	**Yes/No**	**Ref Doc Page No**	**Remarks**
	Manufacturer			
	Brand:			
	Type/Model			
	Country of Origin			
1	**Description of Function**			
1.1	Incubator is a closed chamber which heats a sample at a pre-set temperature for long term for applications like culture growth etc.			
2	**Operational Requirements**			
2.1	Electrically operated temperature controlled incubator.			
3	**System Configuration**			
3.1	Microprocessor based digital incubator, complete unit with all standard accessories.			
4	**Technical Specifications**			
4.1	Interior: w x h x d: Approx. 355mm x 355mm x 355mm. Easy to clean, interior made of stainless steel, with supports on the three sides for two adjustable perforated stainless steel shelves.			
4.2	Fitted with load indicator and mains indicator.			
4.3	Temperature Variation +/- 1 °C.			
4.4	Temperature Range- ambient to 70 °C.			
4.5	Incubator shall be mounted on suitable epoxy powder coated with four support legs.			
5	**Accessories, spares and consumables**			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
6	**Operating Environment**			
6.1	The system offered must be designed to store and be operated normally under the condition of the purchaser's Country. The conditions include Power supply, Climate, temperature and relative humidity.			
6.2	Power supply: 220-240V/ 50 Hz AC Single phase fitted with appropriate plugs. The power cable must be at least 3 metres long.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 or ISO 13485:2003/AC: 2007 **AND**			
7.2	CE or USFDA approved product certificate.			
8	**User Training**			
8.1	User training must be provided onsite			
9	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10	**Maintenance Service During Warranty Period**			
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			

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S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
11	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12	**Documentation**			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			
12.3	Certificate of calibration and inspection from factory.			

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Technical Specification of Hydraulic Minor OT Table

S.N.	Purchase's Specifications	Bidder's Compliance Sheet		
	Hydraulic Minor OT Table	**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer:			
	Brand:			
	Type /Model:			
	Country Of Origin:			
1	**Description Of Function**			
1.1	It is a table especially used for the different kind of surgeries.			
2	**Technical Specification**			
2.2	Should have Hydraulic Up and Down & Center Pillar having weightlifting capacity of 150kg.			
2.3	Should have stainless steel fitting of 304G.			
2.4	Should have detachable- Interchangeable head and leg section.			
2.5	Should have in-built kidney bridge			
2.6	Should have Five section Radio translucent Top			
2.7	Should have sophisticated mechanics for providing smooth stepless articulation of table top for precise patient positioning			
2.8	Base and cover should be made up of easy to clear stainless steel.			
2.9	**Technical Parameters:**			
	Length of Table: approx.1900 mm			
	Width of Table Top: approx. 510 mm			
	Minimum Height (without Mattress):750 mm			
	Maximum Height (without Mattress): 1050 mm			
	Trendelenburg: 30°			
	Reverse Trendelenburg: 25°			
	Lateral Tilt: ±20°			
	Back Section: 80°/25°			
	Head Section: 20°/60°			
	Leg Section: 15°/90°			
	Floor Locking System: Manual			
3	**Accessories, Spare Parts**			
3.1	• Anesthesia Screen-1pcs • Knee Crutches-1 pair • Lateral Support- 1pair • Flat clamp -7pcs • Shoulder support- 1pair • Radial clamp-1pair • Arm Rest-1pair			

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	• Mattress 50mm- 1set			
3.2	Should be supplied with standard accessories.			
4	**Standard& Safety Requirements**			
4.1	Must submit ISO13485:2003/AC:2007 AND			
4.2	Must submit CE or USFDA listed product.			
5	**User Training**			
5.1	Must provide user training (including how to use and maintain the equipment).			
6	**Warranty**			
6.1	Comprehensive warranty for 1 year after acceptance.			
7	**Documents**			
7.1	Must submit Valid Manufacturer authorization letter.			
7	**Maintenance Service During Warranty Period**			
7.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with corrective/breakdown maintenance whenever required.			
8	**Installation and Commissioning**			
8.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
9	**Documentation**			
9.1	User (Operating) manual in English.			

Bidder must completely fill the Technical Specification Form (TSF). Only Yes/No/All complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted. Failure in doing so may lead to rejection of bid from technical committee.

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Technical Specification of Hematology Analyzer (3-Part)

S.N.	Purchaser's Technical Specifications	Bidder's Compliance Sheet		
	Hematology Analyzer (3- part)	**Compliance Yes / No**	**Deviation (if any)**	**Corresponding page no. of data sheet/ catalogue in support of specification**
	Manufacturer:			
	Brand:			
	Type / Model:			
	Country of Origin:			
1.	**Description of Function**			
1.1	Automated hematology analyzer or complete blood cell counter is used to count various types of blood cells in the blood.			
2.	**Operational Requirements**			
2.1	Fully automated 3 parts differential hematology analyzer.			
3.	**System Configuration**			
3.1	Fully Automated Hematology Analyzer, complete unit with all standard reagents, consumables and accessories.			
4.	**Technical Specifications**			
4.1	The instrument shall have random access discrete analysis modes for CBC.			
4.2	The instrument shall have facility to report 22 or more parameters.			
4.3	The instrument shall have large LCD Touch display.			
4.4	Shall have: • WBC, RBC and PLT histograms.			
4.5	The instrument must have throughput Upto 60 tests/hour or more.			
4.6	The sample aspiration volume must not be more than 50µl for whole blood.			
4.7	Principle of working: Impedance method or equivalent for RBC and PLT counting.			
4.8	Various sensors must check the condition of the instrument, if any abnormality is detected, an error message be displayed so that occurrence of trouble is prevented.			
4.9	Quality assurance system with calibrators & controls.			
4.10	The analyzer must store at least 5000 results or more.			
4.11	Shall have built-in USB2.0 or equivalent, for allowing data transfer.			
5.	**Accessories, spares and consumables**			
5.1	The instrument should be supplied with all Reagents & consumables, calibrators & controls, required to do at least 200 test to be supplied during installation.			
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including			

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	items not specified above).			
6.	**Operating Environment**			
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220-240VAC, 50Hz fitted with appropriate plug type D (3 pins). The power cable must be minimum 3 meter long.			
6.3	Suitable UPS for minimum 30 min. backup for the entire system			
7.	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices			
7.2	Must submit CE Marked compliance with in-Vitro Diagnostic Medical Device Directive 98/79/EC and USFDA approved certificates.			
7.3	Shall meet IEC 61010-2-081safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes.			
8.	**User Training**			
	Must provide user training (including how to use and maintain the equipment).			
9.	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.	**Maintenance Service During Warranty Period**			
10.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
11.	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.	**Documentation**			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			
12.3	List of important spare parts and accessories with their part numbers and costing.			
12.4	Certificate of calibration and inspection from factory.			
12.5	Must Submit Valid Manufacturer Authorization letter.			
12.6	Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted. Failure in doing so may lead to rejection of bid from technical committee.			

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Technical Specification of Glucometer

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Glucometer	Yes/No	Ref Doc Page No	Remarks
	Manufacturer:			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Technical Specification**			
1.1	**Range/Linearity:** 20 to 500 mg/dl.			
1.2	**Maximum reading time:** Less than 10 seconds.			
1.3	**Size of blood samples required for test:** ≤1.5 microliters.			
1.4	**Memory capacity:** At least 50 test results.			
1.5	**Accuracy:** +/- 10%.			
1.6	**Reproducibility:** +/- 5%			
1.7	**Settings:** Should have automatic code detection facility, time and date and display of sugar in mg/dl. viii. Software-Inbuilt software should be available and should have facility to ensure accuracy of measurement.			
1.8	**Configuration:** Should use electro chemical technology.			
1.9	**Power requirements:** Shall be battery operated 3 volt lithium ion cell battery or 2x (AAA) Alkaline battery. Battery should be supplied with item and should last at least 1000 tests.			
1.10	**Atmospheric conditions:** The Glucometer should be capable of being stored in ambient temperature range 0 to 50 degree centigrade and relative humidity of 15 to 90%. Further it should be capable of operating continuously in ambient temperature of 10 to 50 degree centigrade and relative humidity of 15 to 90%.			
1.11	**Warranty:** Should have life time replacement warranty for 1 years.			
1.12	**Operating Manual:** The operating instructions and manuals are to be supplied.			

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Technical Specification of BP Apparatus

S.N.	Purchaser's Specifications	Bidders Remarks	
	BP Apparatus	**Yes/No**	**Page No. in Catalogue**
	Manufacturer:		
	Brand:		
	Type / Model:		
	Country of Origin:		
1	**Description of Function**		
1.1	For Measuring blood pressure using oscillometric method.		
2	**Technical Specifications**		
2.1	Analog blood pressure measuring device.		
2.2	Measuring range: 0-300 mmHg approx.		
2.3	Standard neonatal size cuff must be provided.		
2.4	The cuffs must be double Velcro fastening, enabling it to be adjusted to fit tightly around the arm.		
2.5	The cuff must be washable, very strong and reinforced at both ends.		
3	**Accessories, spares and consumables**		
3.1	Standard bag for BP set- 1 pcs Baby Stethoscope: 1 pcs		
4	**Operating Environment**		
4.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.		
5	**Standards and Safety Requirements**		
5.1	Must submit ISO or CE certificate.		
6	**User Training**		
6.1	Not applicable.		
7	**Warranty**		
7.1	Comprehensive warranty for 1 year after acceptance.		
8	**Maintenance Service During Warranty Period**		
8.1	Standard warranty conditions are applicable.		
9	**Installation and Commissioning**		
9.1	Must supply complete pack ready to use.		
12	**Documentation**		
12.1	User (Operating) manual in English.		

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Technical Specification for Patient Monitor (7 parameter)

S.N.	Purchaser's Specification	Bidder's Compliance Sheet		
		Compliance Yes/No	Deviation (if any)	Corresponding page no. of data sheet/ catalogue in the support of specification
Patient Monitor (7 parameter)				
Name of Bidder:				
Manufacturer:				
Brand:				
Type / Model:				
1.	**Description of Function**			
1.1	Advance high end monitoring vital signs of all patient categories, at bedside, transportation applicable for Adult, Pediatric and Neonatal application.			
2.	**Operational Requirements**			
2.1	It shall operate on AC power supply as well as built-in battery.			
3.	**System Configuration**			
3.1	Should have ECG, SpO2, NIBP, Dual IBP, ETCO2, Respiration and Temperature measurement function.			
4	**Technical Specifications**			
4.1	Advanced High-end ICU Monitor for Adult, Pediatric and neonatal application			
4.2	At least 12.1" high resolutions LCD/LED Touch display with navigation wheel.			
4.3	Should have facility to display ECG, SpO2, NIBP, Dual IBP, ETCO2, Respiration and temperature simultaneously.			
4.4	Should display at least 9 traces on-screen waveforms and maximal up to 13.			
4.5	Monitor must have Lithium-ion Battery and must have more than 3.5-hour battery backup.			
4.6	Monitor should work on Fan-less technology.			
5	**Measurements range:**			
5.1	**ECG**			
5.2	**Lead Type** • 3 lead wire: I, II or III • 5 lead wire: I, II, III, aVR, aVL, aVF, V Must have features to support 12 Lead ECG.			
5.3	Differential input impedance: ≥10MΩ			
5.4	Bandwidth: 0.05~150Hz (Diagnostic) 0.5~40Hz (Monitoring)			

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	1~20Hz (Operation)			
5.5	CMRR: ≥90dB (Diagnostic) ≥105dB (Monitoring & Operation)			
5.6	HR measuring range: 15~350bpm			
5.7	Sweeping speed: 6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s			
5.8	Input dynamic range should be ±(0.5mVp~5mVp)			
5.9	Must have Pacemaker pulse detection and rejection function, ESU protection.			
5.10	Should have ST Segment Analysis with Measurement range -2.0 mV - +2.0 mV			
5.11	**NIBP**			
5.12	Should operate on Oscillometric method Technique			
5.13	Should have typical measurement time: <30 seconds (adult cuff)			
5.14	Should have measuring range Neonate to Adult with 20-275mmHg			
5.15	Should have NIBP measurement mode: Manual, Auto, STAT, Multi-cycle mode			
5.16	Should have Auto measuring intervals: Approx. 1-470min			
5.17	**SPO2**			
5.18	Should Operate on Dual-wavelength optical method			
5.19	Should have Measuring range: 0%~100%			
5.20	Should have Low perfusion performance as low as 0.3%.			
5.21	Should have Measuring accuracy of not greater than 2% for SpO2 range 70~100%.			
5.22	PR measuring range: 30~250bpm			
5.23	PR measuring accuracy: ±2bpm or ±2%, whichever is greater			
5.24	**RESP**			
5.25	Should have measuring range: 0~120rpm			
5.26	Measuring accuracy: ±5% or ±2 rpm, whichever is greater			
5.27	Should have Apnea alarm delay setting range: 5 s-120 s			
5.28	**TEMP**			
[illegible]	Measuring range: 0~50°C			
5.30	Measuring accuracy: ±0.1°C			
5.31	Must have audio and video Alarm limit display on main screen.			
5.32	**ETCO2**			
5.33	Should have Infrared Optical Method			
5.34	Sampling mode should be mainstream.			
5.35	Measuring range should be 0-150mmHg			
5.36	**IBP**			
5.37	Should have strain gauge transducer technology.			
5.38	Should have measuring range 50-300mmHg			
5.39	Should have Input sensitivity: 5μV/V/mmHg			
5.40	Monitor must have Patient specific alarm default settings.			

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5.41	Monitor should at least 2000 hours of trend data, 11000 groups of NIBP records, 2000 groups of alarm events, 140 hours of ECG waveforms			
5.42	Should have facility for general view, big font view, all ECG trace view, Resp Oxy view, short trend view and NIBP list View.			
5.43	Should have features for comprehensive calculations for clinical application like Hemodynamics calculation, Drug concentration calculation, Renal function calculation, Respiration calculation, Oxygenation calculation.			
5.44	Should have accessories box for standard configuration.			
5.55	Data interface (for ECG) through RS232/BNC/USB or equivalent.			
5.56	Display shall have facility to report system errors, leads and sensors failure and built-in battery status.			
5.57	Automatic switch to batteries in case of power failure.			
6	**Accessories, spares and consumables**			
6.1	**Accessories:** All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.			
7.0	**Operating Environment**			
7.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country specific place. The conditions include Power Supply, Climate, Temperature, Humidity, Altitude etc.			
7.2	Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug.			
8	**Standards and Safety Requirements**			
8.1	Must submit ISO 13485:2003/AC:2007 for medical devices AND			
8.2	CE (93/42 EEC Directives) and USFDA approved product certificate.			
8.3	Must Submit IEC 60601-1 Medical electrical equipment part 1-6 general requirements for safety test report. Fail to submit will disqualify the bidder.			
9.0	**User Training**			
9.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
10.0	**Warranty**			
10.1	Comprehensive warranty for 1 years after acceptance.			
10.2	Commitment letter from the manufacturer guaranteeing the availability of spare parts for the next 5 years.			

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11.0	**Maintenance Service During Warranty Period**			
11.1	During the warranty period supplier must ensure corrective/ breakdown maintenance whenever required.			
12.0	**Installation and Commissioning**			
12.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
13	**Documentation**			
13.1	The bidder should compulsorily fill the technical specification tender form and clearly mention the Manufacturer, Brand, Model and Country of Origin.			
13.2	The bidder should submit a valid authorization from the manufacturer. Sub-Authorization is not valid.			
13.3	The bidder should submit the original brochure or e- copy.			
13.4	User (Operating) and Service (Technical / Maintenance) manual in English.			
13.5	List of important spare parts and accessories with their part numbers and costing.			

Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted. Failure in doing so may lead to rejection of bid from technical committee.

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Autoclave Electric Cooker Type

S.N.	Purchaser's Specifications		Remarks
	Autoclave Electric Cooker Type 20L		
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Description of Functions**		
1.1	Pressure cooker type portable steriliser unit for sterilising of surgical instruments and dressing materials by means of steam.		
2	**Operational Requirements**		
2.1	It shall be mains electrically powered.		
3	**System Configurations**		
3.1	Pressure cooker type portable steriliser unit, 1 unit		
3.2	Floor stand, 1 unit		
3.3	Graduated water measuring jug, to enable filling of steriliser with correct quantity of water, 1 unit		
4	**Technical Specifications**		
4.1	Operating temperature 121 ^{0}C – 134 ^{0}C pressure 1.1 to 2.2 kg/cm2 of steam pressure		
4.2	The pressure cooker type portable steriliser shall be operated by mains electricity and shall be used with distilled water.		
4.3	Constructed of heavy-duty spun aluminium (preferably stainless steel), cylindrical shape and must be seamless construction to prevent bacteria residue and dirt accumulation.		
4.4	Lid have spring loaded safety valves - pressure relief (steam release) valves, dead weight type safety valve, automatic over pressure safety valve and dial type pressure gauge (0 – 60 PSI) and must be sealed the autoclave with joint less neoprene gasket,		
4.5	Unit to include fitted spacing shelf/trivet above heating element to prevent contact of contents with heating element. Electrical heating element to have over-temperature protection/cut out and Maximum electrical power must not to exceed 4KW.		
5	**Accessories, Spare Parts and Consumables**		
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.		
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.		
5.3	Additional 2 spare lid gaskets		
6	**Operating Environment**		
6.1	Power supply: 220 – 240V AC, 50Hz fitted with appropriate plug type D 3pins. The power cable must be at least 3 metres in length.		
7	**Standards & Safety Requirements**		

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S.N.	Purchaser's Specifications	Remarks
7.1	Must submit ISO 9001 or ISO 13485:2003/AC: 2007	
8	**User Training:**	
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.	
9	**Warranty**	
9.1	The warranty period for this item shall be 12 months after acceptance of the Goods	
10	**Maintenance Service During Warranty Period**	
10.1	Preventive and corrective maintenance services during warranty period shall be included.	
11	**Installation and Commissioning**	
11.1	It shall be installed and commissioned by the Supplier at the final destination(s),	
12	**Documentation**	
12.1	It must be supplied with detailed operating and maintenance manuals and technical information in the English language.	
12.2	Must Submit manufacture Authorization letter	

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S.N.	Purchasers Requirement	Bidders Offer
	Patient Monitor (5 parameter)	
	Manufacturer	
	Brand	
	Type/Model	
	Country of Origin	
1	**Description of Function**	
1.1	A bed side multi-function patient monitor for monitoring the physiological parameters of all patient categories including Adult, Pediatric and Neonatal application.	
2	**Operational Requirements**	
2.1	It should operate on AC power supply as well as built-in battery.	
3	**System Configuration**	
3.1	5 parameter Patient Monitor capable of continuous monitoring of: ECG, Resp., SpO2, NIBP and Temp. with all accessories and consumables required for monitoring of physiological parameters.	
4	**Technical Specifications**	
4.1	Monitor must be at least 12" high resolution TFT color display with LED/LCD touch screen and navigation wheel.	
4.2	It must be able to display up to 5 physiological parameters without the need for any external device.	
4.3	It must have Adult, Pediatric and Neonatal modes.	
4.4	It must be able to display the numerical data as well as waveform of heart rate/pulse rate, respiratory rate, NIBP, temp, etc.	
4.5	It must be able to simultaneously display up to 7 waveform of ECG, SPO2, pulse wave and respiration.	
4.6	It must be supplied with lithium-ion battery with minimum 2 hours battery backup in case of power failure.	

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4.7	Should have network capability to connect central monitoring system.	
4.8	3 level Alarm (low, medium and high) notification shall be given by Audible and Visual signal.	
4.9	**SpO2:**	
	• Should use digital technology for monitoring SPO2.	
	• Measuring range: 21-100%.	
	• Measuring accuracy: 2% (from 70-100%).	
4.10	**ECG:**	
	• Should be able to display: Lead I, II, III, aVR, avF, aVL, V.	
	• Heart Rate (HR) range: 15-300 bpm.	
	• HR accuracy: ±1% or ±2bpm.	
4.11	**NIBP:**	
	• Method of measurement: Oscillometric.	
	• Modes: Manual and Automatic.	
4.12	**Respiration:**	
	• Respiration rate: 0-150 rpm.	
	• RR accuracy: ±2% or ±5bpm.	
4.13	**Temperature:**	
	• Channel: 2	
	• Measuring range: 0-50°C.	
	• Measuring accuracy: ±0.2°C.	
5	**Accessories, spares and consumables**	
5.1	**Each patient monitor must be supplied with following accessories:**	
	• 5 lead ECG cable for adult: 2 set	
	• SpO2 probe and connector for adult: 2 set	
	• NIBP Cuff and connection hose for adult: 1 set	
	• Skin Temperature Probe: 1 set	
	• Wall mount with basket: 1 set	
	• Fixing plate with screws: 1 set	
	• Battery: 2 pcs	
	• Dust Cover: 1 pc	

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5.2	All other standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.	
6	**Operating Environment**	
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.	
6.2	**Power supply**: 220 - 240 VAC, 50Hz fitted with appropriate plug.	
7	**Standards and Safety Requirements**	
7.1	Must submit valid ISO 13485 or better certificate for Medical Devices.	
7.2	Must submit valid EU-CE certificate including other related documents from notified body with notifying body number.	
7.3	The product must be USFDA 510(k) approved and must submit the related document.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years for the entire system. The warranty starts from the day of complete satisfactory installation of the equipment.	
10	**Maintenance Service During Warranty Period**	
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required. (Written commitment to be provided by the bidder.)	
11	**Installation and Commissioning**	

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11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.	
12	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical / Maintenance) manual in English.	
12.3	Certificate of calibration and inspection from factory.	

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Technical Specification of Semi Fawler bed with Single Crank				
S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Semi Fawler bed with Single Crank	**Yes/No**	**Page no in catalogue/DS**	**Remarks**
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	Semi-Fowler bed supports the patient lying with their head and torso elevated improving respiratory function, digestion, and comfort—particularly beneficial for obstetric, geriatric, and respiratory care settings.			
2	**Operational Requirements**			
2.1	It shall operate by single crank with ABS Head and Foot Pannel.			
3	**System Configuration**			
3.1	Bed Shall come with Head and Foot ABS Pannel, Single crank, mattress.			
4	**Technical Specifications**			
4.1	Should Have two sections metallic CRCA Perforated TOP.			
4.2	Should have foldable handle for backrest adjustment.			
4.3	Manual position should be obtained by separate smooth crank system with SS Handle			
4.4	Should have provision of Urine bag Holder			
4.5	Should have position of IV rod at 4 locations.			
	Should have pretreated & Epoxy powder coated MS Parts.			
4.7	Should have polymer molded Head and Foot Pannel, easily removable without using any kinds of extra tools.			
4.8	Should have 2 Section mattress.			
4.9	Overall dimension should be Approx 2000 X 900 mm (LxW)			
4.10	Hight Range Should be Approx. 600 mm			
4.11	Backrest elevation Should be Approx. 75 Degree.			
4.12	Safe Working load should be Approx. 200 KG			
4.12	Should come with Collapsible Aluminum Side Railing.			
5	**Accessories, spares and consumables**			

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5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 13485 or better for medical devices.			
7.2	Must Submit CE			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
	Warranty			
9.1	Comprehensive warranty for 1 years after acceptance.			
10	**Maintenance Service During Warranty Period**			
10.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
11	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			

S.N.	Purchaser's Specifications	Bidders Offer
	Pulse Oximeter Handheld	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	Hand held Pulse oximeter for SPO2 and Pulse Rate.	
2	**Operational Requirements**	
2.1	Pulse Oximeter with Adult, Pediatric and Neonate SPO2 Probe.	
3	**System Configuration**	
3.1	Pulse Oximeter with Adult, Pediatric and Neonate SPO2 Probe.	
4	**Technical Specifications**	
4.1	Should be small in size, light weight and convenient in carrying.	
4.2	Should display SPO2 value, pulse rate value along with bar graph and pulse waveform display on color LCD/LED display.	
4.3	Should work on rechargeable lithium battery.	
4.4	Should have facility of adjustment of Screen brightness.	
4.5	Should have pulse sound indication and alarm function.	
4.6	Should have SPO2 value and pulse rate value record function.	
4.7	**SPO2 Measurement:**	
	Measuring Range: 0% to 100% with ±2% accuracy	
	Resolution: 1%	
4.8	**Pulse Rate Measurement:**	
	Measuring Range: 30 bpm to 200bpm with accuracy of ±2 bpm	
	Resolution: 1 bpm	
4.9	Should have alarm function with adjustable alarm limits.	
5	**Accessories, spares and consumables**	
5.1	SpO2 probe for Adult, Pediatric and Neonate: 1 pcs each.	
	Charger adaptor: 1 pcs	
6	**Operating Environment**	
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.	

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7	**Standards and Safety Requirements**	
7.1	Must submit valid ISO 13485 or better certificate for Medical Devices.	
7.2	Must submit valid EU-CE certificate including other related documents from notified body with notifying body number.	
7.3	The product must be USFDA 510(k) approved and bidders must submit the related document.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years that starts from the day of complete satisfactory installation of the equipment.	
10	**Maintenance Service During Warranty Period**	
10.1	During warranty period supplier must ensure at least 2 preventive maintenance visits annually and corrective/breakdown maintenance whenever required. (Written commitment to be provided by the bidder.)	
11	**Installation and Commissioning**	
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.	
12	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical / Maintenance) manual in English.	

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S.N.	Purchaser's Specifications	Bidders Offer	
	Trolley, Medicine	Yes/NO, Page No.	Remarks
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
1	**Description of Function**		
1.1	A medicine/drug trolley for storage and delivery of medicines and drugs to patients in wards of healthcare facilities.		
2	**Operational Requirements**		
2.1	Stainless steel medicine trolley with swivel castors.		
3	**System Configuration**		
3.1	Medicine Trolley, complete unit.		
4	**Technical Specifications**		
4.1	It shall be constructed fully with 304 grade stainless steel sheet and tube or better.		
4.2	Overall size: approximately 900 H x 460 W x 760 L mm.		
4.3	Flat top of SS and at least 6 inch deep removable bucket at bottom.		
4.4	Equipped with waste bin, needle disposable container, file cassette, atraumatic corner buffers and guard rails.		
4.5	Shall be mobile on 4 x 100mm diameter (approx.) robust 360 deg. anti-rust, anti-static, noiseless, swivel castors with non-marking grey tyres and with at least 2 diagonal castors shall have brakes.		
5	**Accessories, spares and consumables**		
5.1	**Accessories:**		
	· SS bowl: 01 no.		
6	**Operating Environment**		
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.		
7	**Standards and Safety Requirements**		
7.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 **AND**		
7.2	CE or USFDA approved product certificate.		
8	**User Training**		
8.1	Not applicable.		
9	**Warranty**		
9.1	Warranty for 1 year after acceptance.		
10	**Maintenance Service During Warranty Period**		
10.1	Standard warranty conditions are applicable.		

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11	**Installation and Commissioning**		
11.1	Must supply preassembled unit, ready to use.		
12	**Documentation**		
12.1	User's manual shall be supplied in English.		

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Technical Specification of Autoclave (Verticle)

S.N.	Purchaser's Specifications	Bidders Remarks	
	Autoclave (Verticle)	**Yes/No**	**Page No. in Catalogue**
	Manufacturer:		
	Brand:		
	Type / Model:		
	Country of Origin:		
1	**Description of Function**		
1.1	Autoclaves are required for sterilizing an object in high temperature and high-pressure steam.		
2	**Technical Specifications**		
2.1	Electrically heated vertical steam sterilizer, pressure cooker type.		
2.2	Pressure range 15-20 psi adjustable.		
2.3	Pressure display and safety release valve.		
2.4	Outer and inner chamber made of stainless steel.		
2.5	Inner chamber made of at least 18 SWG SS sheet.		
2.6	Chamber volume: approx.80 liters or more.		
2.7	Stainless steel Steam jacket insulated with high grade glass wool.		
2.8	Automatic low water level cut off device.		
2.9	Joint less gasket.		
2.10	Water inlet and drain valves.		
3	**Accessories, spares and consumables**		
3.1	• Spare heating element- 2 set • Three stainless steel wire baskets; so that one/two suitably fit into the autoclave at the same time.		
4	**Operating Environment**		
4.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.		
4.2	Power supply: 220-240V/ 50 Hz AC Single phase. The power cable must be minimum 3 meters long.		
5	**Standards and Safety Requirements**		
5.1	Must submit ISO and CE certificate.		
6	**User Training**		
6.1	Not applicable.		
7	**Warranty**		
7.1	Comprehensive warranty for 2 years after acceptance.		
8	**Maintenance Service During Warranty Period**		
8.1	Standard warranty conditions are applicable.		

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S.N.	Purchaser's Specifications	Bidders Remarks	
9	**Installation and Commissioning**		
9.1	Must supply complete pack ready to use.		
10	**Documentation**		
10.1	User (Operating) manual in English.		

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TSN:113108

Approved Date:01.2013

Laryngoscope, Magnifying Rigid (with Light Source)

S.N.	Purchaser's Specifications	
	Laryngoscope, Magnifying Rigid (with Light Source)	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	A rigid laryngoscope is used for direct laryngoscopy (visualizing the larynx). A magnifying glass with light source is used with this to magnify and illuminate the anatomical structure under observation.	
2	**Operational Requirements**	
2.1	Small and lightweight system is required.	
3	**System Configuration**	
3.1	Magnifying rigid Laryngoscope with light source, complete unit.	
4	**Technical Specifications**	
4.1	Rigid, metallic fibre-optic light system with inbuilt magnifying system.	
4.2	Viewing angle 90 degrees.	
4.3	Light source: Halogen bulb	
4.4	Autoclaveable.	
4.5	Shall work on inbuilt rechargeable battery.	
5	**Accessories, spares and consumables**	
5.1	**Accessories:** • Spare halogen bulb	
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).	
6	**Operating Environment**	
6.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.	
6.2	Rechargeable battery operated system. Charger to be provided if integrated charger is not there.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**	
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 1 year from acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	Standard warranty conditions are applicable.	
11	**Installation and Commissioning**	
11.1	Supplier must accomplish proper commissioning of the equipment on site.	
12	**Documentation**	
12.1	User (Operating) manual in English	
12.2	Service (Technical / Maintenance) manual in English	
12.3	List of important spare parts and accessories with their part number and costing.	

TSN:113111

Approved Date:01.2013

Otoscope Set

S.N.	Purchaser's Specifications	
	Otoscope Set	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	Otoscope is used for examination of the inner ear, canal and tympanic membrane.	
2	**Operational Requirements**	
2.1	Compact system, battery operated.	
3	**System Configuration**	
3.1	Otoscope set with all standard accessories.	
4	**Technical Specifications**	
4.1	Otoscope set shall have diagnostic head threaded on a handle.	
4.2	Shall have pivoting head with a wide-angle viewing lens of magnification 3x.	
4.3	Shall come with reusable plastic specula, which can be attached to frontal part.	
4.4	Shall have halogen bulb, 2.5V with bright white light.	
4.5	Handle shall have on/off switch.	
4.6	Shall works with 2 AA-batteries (1.5V / LR6 alkaline).	
5	**Accessories, spares and consumables**	
5.1	**Accessories:** • 1 x spare 2.5V halogen bulb. • 1 x set of 2 AA-batteries (1.5V / LR6 alkaline). • 1 x set of 8 reusable plastic specula, 2 of each diameter: 2.5, 3.0, 4.0 and 5.0 mm. • 1 x storage case.	
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).	
6	**Operating Environment**	
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**	
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 1 year after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
11	**Installation and Commissioning**	
11.1	Supplier must accomplish proper commissioning of equipment onsite.	
12	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical / Maintenance) manual in English.	
12.3	List of important spare parts and accessories with their part numbers and costing.	
12.4	Certificate of calibration and inspection from factory.	

TSN:113117

Approved Date:01.2013

Tongue Depressor, Disposable

S.N.	Purchaser's Specifications	
	Tongue Depressor, Disposable	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	A tongue depressor is used to depress the tongue to allow for examination of the mouth and throat.	
2	**Operational Requirements**	
2.1	Tongue depressor, wooden disposable.	
3	**System Configuration**	
3.1	Tongue Depressor, disposable.	
4	**Technical Specifications**	
4.1	Wooden tongue depressor, with rounded extremities.	
4.2	Size: approx. 16 x 140mm.	
4.3	Thickness: approximately 2mm.	
4.4	Single use.	
4.5	Non sterile.	
4.6	Packaging: Shall supply one box of 500 wooden tongue depressors.	
5	**Accessories, spares and consumables**	
5.1	Not applicable,.	
6	**Operating Environment**	
6.1	The system offered must be designed to store and be operated normally under the condition of the purchaser's Country. The conditions include Climate, temperature and relative humidity.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO 9001 or ISO13485:2003/AC:2007 for Medical Devices **AND**	
7.2	CE or USFDA approved product certificate.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Warranty for 1 year after acceptance.	
10	**Maintenance Service during Warranty Period**	
10.1	Standard warranty conditions are applicable.	
11	**Installation and Commissioning**	
11.1	Must supply preassembled unit, ready to use.	
12	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical / Maintenance) manual in English.	

TSN: 137146 **Approved Date:** 2075-09-18

USG Machine Portable Color Doppler

S. N.	Purchaser's Specifications	
	USG Machine Portable Colour Doppler with Single Probe	
	Manufacturer	
	Brand	
	Type/Model	
	Country of Origin	
1	**Description of Functions**	
1.1	A general purpose Laptop Type colour Doppler ultrasound imaging system.	
2	**Operational Requirements**	
2.1	It shall operate on AC power supply as well as built in rechargeable battery. The machine is intended to be carried to the field orthe patient Ward with the inbuilt battery system to examine patients who could not come to USG room.	
3	**SystemConfigurations**	
3.1	Portable colour Doppler ultrasound imaging system, 1unit.	
3.2	1 unit of broad bandwidth of 1 - 6MHz, convex array probe for OB/GYN and abdominal application.	
3.3	1 unit of Black & White thermal printer.	
4	**TechnicalSpecifications**	
4.1	The machine isintended to be carried to the field or the patient Ward with the inbuilt battery system to examine patients who could not come to USG room. It shall comply with the following requirements for this purpose:	
4.2	The unit should be compact, lightweight and portable. Weight should not be more than 7 Kgs including battery (excluding cart and accessories).	
4.3	Shall have long lasting built-in rechargeable battery which shall support up to 2 hours of routine ultrasound examinations.	
4.4	This machine shall come with main unit, 1 unit of probe, built-in rechargeable Lithium ion battery packs and 1unit of black and White termal printer.	
4.5	It shall come with a custom made trolley on castors to hold the main unit on top with provision of a probe holder and drawers for storage of 3 probes, printer and ultrasound gel.	
4.6	Main applications: OB/GYN, abdominal, small parts.	
4.7	**Mainunit:**	
4.8	The System must have integrated high – resolution LED monitor of 15" Inches & more with latest In plane switching technology.	
4.9	The system should have full alphanumeric soft keys keyboard with easy access scans controls and trackball. Provision for sliding keyboard cover will be preferred.	
4.10	Probe connector: atleast 1 probe connector.	
4.11	Shall come with 1 unit of broadbandwidth of 1 - 6MHz, not less than 30cm scan depth, convex array probe for OB/GYN and abdominal application.	
4.12	The system shall accept most of the common probe types of: convex array, linear array, phased array.	
4.13	Scan modes: M-mode, B-mode and 2-D.	
4.14	System shall be incorporated with English operation menu and reporting.	
4.15	With digital broad band width multi-frequency imaging capability.	
4.16	With Doppler angle and angle correction.	
4.17	Framerate: not less than 40fps.	
4.18	Display depth: minimum 30cm.	
4.19	Matrix size: 512 x 512 x 8bit.	

4.20	Gray scale levels: 256.
4.21	**The machine shall include the following functions:**
4.22	Programmable pre-set examination protocols store common setting related to image display/adjustment, annotation.
4.23	Obstetric analysis: BPD (biparietal diameter), CRL (crown-rump length), AC (abdominal circumference), HC (heart circumference), FL (foetal length), GS (gestation sac), GA (estimation of gestation age), foetal weight, heart rate and etc.
4.24	Advance features like panoramic, virtual convex, live dual, crystal signature, needle enhancement, anatomical M, Auto IMT, integrated SSD should be upgradable for future use
4.25	OB/GYN reporting.
4.26	Small part analysis.
4.27	Velocity Colour to detect colour flow with PW & CW Doppler.
4.28	Body markers.
4.29	Time & slope for M-Mode.
4.30	Contrast with 8 - 10 steps adjustment.
4.31	Image pan, zoom, freeze, textannotation.
4.32	Focus: 4-point adjustment.
4.33	Automatic gain control.
4.34	Near and far Gain adjustment.
4.35	With pre- and post- processing.
4.36	With tissue harmonic imaging.
4.37	With tissue optimization function.
4.38	With function to reduce patch noise and other image artefacts without compromising quality of images.
4.39	With multi-beamimaging.
4.40	With clear visual of biopsy needle position.
4.41	With dual and dúplex imaging.
4.42	Dynamic range, selectable up to approximately 165dB.
4.44	Cine memory of 250 or more frames for cine loop playback.
5	**Accessories, Spare Parts and Consumables**
5.1	All standard accessories/ consumables/ parts (including 2 bottles of ultrasoundgel , 2 rolles of paper and 1 unit of spare battery) required for the proper operation of the above ítem shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any ítems included in this offer which have not been specified in this Technical Specifications Form.
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any ítems included in this offer which have not been specified in thisTechnical Specifications Form.
6	**OperatingEnvironment**
6.1	Powersupply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.
7	**Standards& Safety Requirements**
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**
7.2	CE (93/42 EEC Directives) & USFDA approved product certificate.
7.3	Electrical safety conforms to standards for Electrical Safety IEC 60601-2-37 Medical electrical equipment – Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment.

8	**User Training**
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.
9	**Warranty**
9.1	Comprehensive warranty for 2 years after acceptance.
10	**Maintenance Service During Warranty Period**
10.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.
11	**Installation and Commissioning**
11.1	Supplier must accomplish proper installation & commissioning of equipment on site.
12	**Documentation**
12.1	User (Operating) manual in English.
12.2	Service (Technical / Maintenance) manual in English.
12.3	List of important spare parts and accessories with their part number and costing.
12.4	Certificate of calibration and inspection from factory.

S.N.	Purchasers Requirement	Bidders Remark in Details
	ECG Machine (12 Channel)	
	Manufacturer:	
	Brand:	
	Type/Model:	
	Country of Origin:	
	Note to the Bidders: ***1. Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.*** ***2. Only Yes/No/Comply should not be written.*** ***3. Any deviation must be clearly mentioned.*** ***4. Bidders must submit original catalogue/brochure/technical datasheet with the bid document.***	
1	**Description of Function**	
1.1	ECG Machine is a primary equipment used for recording ECG signal in various configurations.	
2	**Operational Requirements**	
2.1	It should be portable type digital ECG machine that is able to acquire all 12 channel ECG lead simultaneously for adult, pediatric and neonatal applications.	
3	**System Configuration**	
3.1	Portable digital 12 channel ECG machine with complete accessories.	
4	**Technical Specifications**	
4.1	It should have at least 7 inch or more high-resolution color display with touch screen and alphanumeric keyboard.	
4.2	The digital display must be able to show ECG-curves, heart rate, patient name and ID, time, speed, filter setting, etc.	
4.3	Should have simultaneous recording and printing of 12 standard leads: V1-V6, I, II, III, aVL, aVR and aVF.	

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4.4	Should have Filter setting for line-frequency (50 or 60Hz).	
4.5	Should have built in memory which can store at least 100 ECG recordings.	
4.6	Should have continuous check on the quality of electrodes connection, audio visual alert on loss of signal.	
4.7	Should have protection against defibrillation.	
4.8	Should provide indication of system and battery status, electrode connection and paper.	
4.9	Should have built-in high-resolution thermal printer able to print ECG waves in A4 or equivalent paper size either in roll or z-fold paper.	
4.1	The printer should have automatic and manual print-out mode with user selectable channel printing option.	
4.11	Should have user selectable paper speed: 5, 6.25, 12.5 25 and 50 mm/sec.	
4.12	Should be able to measure: HR, PR Interval, P Duration, QRS Duration, T Duration, QT/ QTc Interval, P/QRS /T Axis, etc.	
4.13	Should have rechargeable lithium battery integrated in device with at least 2 hours of backup with printing.	
4.15	Data interface: RS232, USB or equivalent.	
5	**Accessories, spares and consumables**	
5.1	**Each ECG machine must be supplied with following set of**	
	· Battery- 2 pcs	
	· Reusable Patient cable - 1 set.	
	· Reusable electrodes for adult - 1 set	
	· Extremity clamp electrodes, reusable- 4 pcs.	
	· Earthing Cable - 1 pc.	
	· Recording paper rolls/z-fold – 2 rolls/2bundle	
6	**Operating Environment**	
6.2	**Power supply:** 220 - 240 VAC, 50Hz fitted with appropriate plug.	
7	**Standards and Safety Requirements**	

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7.1	Must submit valid ISO 13485 or better certificate for Medical Devices.	
7.2	Must submit valid EU-CE certificate including other related documents from notified body with notifying body number.	
7.3	The product must be USFDA 510(k) approved and bidders must submit the related document.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years that starts from the day of complete satisfactory installation of the equipment.	
10	**Maintenance Service During Warranty Period**	
10.1	During warranty period supplier must ensure at least 2 preventive maintenance visits annually and corrective/breakdown maintenance whenever required. (Written commitment to be provided by the bidder.)	
11	**Installation and Commissioning**	
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.	
12	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical / Maintenance) manual in English.	
12.3	Certificate of calibration and inspection from factory.	

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