COMMUNIQUE WITH ADDENDUM AND ANSWERS TO CANDIDATES' QUESTIONS, RELATING TO THE LOCAL OPEN TENDER FOR THE ACQUISITION OF MEDICAL EQUIPMENT FOR THE MATERNITY AND PEDIATRICS DEPARTMENTS OF THE FAFATA REGIONAL HOSPITAL IN GUINEA BISSAU

ITEMS	QUESTIONS/COMMENTS	ANSWERS/TECHNICAL SPECIFICATIONS/COMMENTS
	MEDICAL EQUIPMENT FOR MATERNITY WARDS	
2	Can we provide a solution for a vacuum pump with two 4-litre polycarbonate bottles?	See addendum
3	- We want to make sure that the 15L concentrator actually takes 380V. Otherwise, according to our manufacturers, their concentrators take220-240V as input voltage. - Item 3 (Medical Oxygen Concentrator): specify the flow rate	See addendum
7	When you read "Must have a patient module heated to 34ºC, to supply gas at the right temperature to the patient, avoiding condensation", do we understand that you are referring to the heated module of the Desflurane evaporator? When you say "O2 control system with a flow rate of approx. 50 liters/minute", do we understand that a solution with an O2 flow rate of >=35 liters/min at 2.8 bar will also be accepted? Isoflurane, sevoflurane and desflurane vaporizers are supplied with the machine. . As far as I/E ratios are concerned, do we understand that a solution with ratios of 4:1 - 1:10 with increments of 0.5 will be accepted? When it says "PEEP: 0-15mbar +-2mbar", do we understand that a solution with a PEEP of 0-30 cmH2O with increments of 1cmH2O is acceptable?	See addendum
8	- The technical specifications are a little ambiguous in relation to the equipment required. - Here we're talking about a surgical table and in the description it says: Diagnostic and monitoring equipment. Could you clarify the request (operating table or ...?); also review the "suitable for packaging products " section. - We understand that what is required for this position is:1- Two electro-hydraulic operating tables ? 2 - A box suitable for packaging medical products measuring 169*104*115cm? 3- Two Pukang DA-7(A1) intensive care beds ?	See addendum
9	- Is it a mobile or ceiling-mounted (surgical) light? - Is it a double or single dome lamp, LED or halogen? Mobile or ceiling? - Lamp (for surgical operations) this lack of a stated technical specification makes it difficult to understand what is required. Please resubmit. - In the absence of specifications, and in order to improve our offer, we request the following information: What type of mounting do you want - ceiling or wall? What type of lighting do you require, 1 dome alone or 1 satellite dome and a main dome? What is the minimum light output of each dome, 140,000lux or 160,000lux at a distance of 1 meter from the operating field?	See addendum
10	- Is it a medical bed or a baby resuscitation table? - Is it a resuscitation table or a medical bed?	Item deleted
11	- Cardiopulmonary bypass machine: why cardiac equipment is needed in maternity wards	Stick to the needs expressed inthe bidding documents
	- As cardiopulmonary bypass equipment is complex, we require additional information, such as technical specifications or a reference brand.	See addendum
12	As our boxes can only hold one laryngoscope handle and 4 blades, we wonder if we should only supply one box per laryngoscope?	See addendum
13	- If it's a fetal Doppler (stethoscope) or a Doppler ultrasound, and if it's a Doppler ultrasound, you'll need to specify the desired probes. - Here, too, we'd like some clarification: stethoscope or ultrasound machine? - Items 13 (Doppler): kindly specify the application and indicate the scanning probes required - NO. 13: Doppler (stethoscope): The name given for the item does not match the technical description. In addition, the item name is unclear,as the stethoscope is a specific piece of medical equipment, whereas the Doppler is not. The stethoscope is a specific piece of medical equipment, whereas the Doppler is not, but can be designated as such: The Doppler effect is commonly The Doppler effect is commonly	See addendum

	used in medicine. It is used for echocardiography, ultrasonography, fetal monitoring and more. - The Doppler effect is used to measure the direction and speed of blood flow in arteries and veins. Resubmission of this document is recommended.	
15	- Which probes are required for this item? - Ultrasonic device : The specification does not correspond to the specification of an ultrasound device.NO. 15: 30/40 Portable color Doppler /CTYN ultrasound unit (mobile): The item name is not entirely clear. If it is a portable / mobile ultrasound unit, the item description does not fully mention essential technical information on the ultrasound unit, such as the probes required.	See addendum
20	Sphygmomanometer the technical specification was on specific model which is not electronic sphygmomanometer, so if POINT No20 can be resubmitted accordingly.	See addendum
22	The value of the medical refrigerator was not available. Must be resubmitted.	See addendum
23	Double-door vaccine refrigerator (with battery backup) : The double-door vaccine refrigerator (with battery backup) is not available. It is not advisable to add a battery backup for a refrigerator of this capacity. Therefore, an inventor of considerable capacity is recommended for the area or equipment in question.	See addendum
27	- Is it a mobile or ceiling-mounted surgical light? - Anesthesia machine: Anesthesia workstation instead of anesthesia machine. This is because the components, including the patient monitor,are requested with the anesthesia machine. - Do we understand from this position that it is not mandatory to include a module for measuring anesthetic gas concentration?	See addendum
28	Heart rate monitor: no mounting accessory, either wall bracket or mobile cart, has been mentioned for this equipment. This is important to protectthe device from falls during use.	See addendum
29	Are we to understand that these are surgical lamps mounted on a pivoting support?	See addendum
30	- The technical specifications (Total Organic Carbon Analyzer) do not correspond to the equipment requested (electric scalpel). Electric scalpel: The technical specification given does not define an electric scalpel with all the necessary accessories and specifications. Must be resubmitted - Are we of the opinion that a TOC meter, model YR04950, is all that's needed?	See addendum
32	- Pre-operative consultation table: according to the biomedical equipment nomenclature, there is no pre-operative consultation table. There is no preoperative consultation table. This item name with no technical specification makes it difficult to understand what is being requested. Resubmit accordingly. - In the absence of specifications, can we assume that this is an emergency stretcher? If so, is an emergency stretcher with fixed height, protective rail, head elevation only and IV holder acceptable?	Item deleted
33	Frame chairs: There are no frame chairs with this description. The description is Surgeon's Chair. Resubmit accordingly.	See addendum
34	Frame cabinets with return : The item names have no international equipment nomenclature, making them very difficult to understand. We have always quoted accordingly.	See addendum
35	- Autoclave capacity not specified - Item not specified type of autoclave (horizontal or vertical) I'm assuming horizontal, with all the equipment required for an operating theatre, but you'll need to specify the dimensions and/or capacity of theroom, and whether 'the opening is manual or automatic with a sliding door. We have a wide range of class B autoclaves for operating theatres (with pulsed vacuum), so you need to specify the desired capacity and whether thechamber is round or rectangular. - Autoclaves: This is a front-loading vertical autoclave, but its capacity is not indicated (L), although distilled water and compressed air are indicated in the technical specifications.	See addendum
36	Is it a surgical aspirator or a medical vacuum pump?	See addendum
37	Electric suction devices for anesthesia: Electric suction devices for anesthesia. This does not correspond to any device used in the operating room. Are (electric) syringes intended for anesthesia in the field of stomatology?	Item deleted

38	- Cooler: Item description and name do not match. Item name and description must be redefined and resubmitted for an appropriate quotation. - We understand this to mean a computer hardware accessory, commonly known as a fan or	See addendum
	CPU heat sink?	
39	Oxygen rails: Item description and name do not match. The name and description must be redefined and resubmitted for an appropriate quotation.	See addendum
	MEDICAL EQUIPMENT FOR PEDIATRICS	
1	We understand that these are whiteboards with easels for the consulting room? We need more specifications or a reference brand	See addendum
2	Chairs: What type of chairs: please state categorically whether it's a surgeon's chair or an office chair.	See addendum
3	Cabinets: What type of cabinets	See addendum
4	Do we understand that we can provide a solution for vacuum pumps with two 4-litre polycarbonate bottles?	See addendum
5	What type of refrigerator. Medical or domestic or what?	Deleted items
8	Are we to understand that the planned incubator can have a minimum capacity of 50 liters (13.2gal)?	See addendum
11	Can we provide a solution for stainless steel baskets for serum bottles? If not, please provide additional specifications or reference marks to help us select the baskets we need.	See addendum
13	Doppler (Stethoscope) - According to the specifications, item 13 is color doppler ultrasound machine, yes, or no? - How many probes are requested? Please specify the frequency range of each probe requested. - Can we provide a solution for stainless steel baskets for serum bottles? If not, please provide additional specifications or reference marks to help us select the baskets we need.	See addendum
14	30/40 Portable color Doppler/CTYN ultrasound unit (mobile). Is item 14 a portable color Doppler ultrasound unit, yes or no? If yes, please revise your specification which is not applicable to the ultrasound machine. - Sterilizers -(Estufas): Item description and name do not match. Item name and description must be redefined and resubmitted. Item name and description must be redefined and resubmitted for an appropriate quotation. These elements must be specified. Specific capacity (L) must be indicated.	See addendum
15	- We want to make sure that the oxygen concentrator actually takes 380V. Otherwise, according to our manufacturers, their concentrators take 220-240V as input voltage. - Point 15 (oxygen concentrators) The model/liters per minute is not specified, nor is the flow rate. Oxygen concentrators: Technical specifications are very sparse, making it difficult to understand the facility's needs. More details are needed accordingly.	See addendum
17	- Lampshade : No significant information to understand this article. - Are we to understand that you want lamps for the bedside table?	Item deleted
22	Hematological analysis machine: Indicate whether 3 or 5 pieces are required	Item deleted
	GENERAL QUESTIONS	
1	We refer to the above-mentioned offer and hereby request you to kindly extend the delivery time granted to deliver the goods to Bafata, since, in our experience, the time given is not sufficient to allow the collection of all the items concerned by the offer, and then the transport to the final destination.	New delivery date : - Minimum: 60 days - Maximum: 90 days

NB: Candidates who may have already submitted their bids prior to publication of this press release may submit a modification or substitution bid to take account of this. Modification or substitution" bids must be marked as such on the envelopes. In any event, failure to take account of the terms of this press release in the preparation of bids will render said bids non- compliant. The other information contained in the tender documents (quantities, technical specifications, etc.) remains unchanged.

I. MEDICAL EQUIPMENT IN THE MATERNITY UNIT

Portable Electric Surgical Vacuum Pump, Suction Machine

ITEM NO.	ITEMS	QUANITY	
2	**Portable Electric Surgical Vacuum Pump, Suction Machine**	**6**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Purchaser's Specifications		
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
	Description of Function		
	Equipment to assist delivery of babies through attachment ofsuction cup to baby's head.		
	Operational Requirements		
	Electrical type vacuum extractor set.		
	System Configuration		
	Vacuum Extractor/Suction Electrical type with complete accessories.		
	Technical Specifications		
	Microprocessor controlled vacuum extractor for safe extraction cup parturition and also suitable as suction unit for freeing the respiratory tract, for suction curettage and as breast pump in case of milk congestion.		
	Automatic vacuum generation and reduction with freely preselectable parameters, hydrophobic bacterial filter with filter change indication.		
	Electronic filling level control with over-sucking protection.		
	Vacuum preselection by key press; high resolving display with indication of desired/actual vacuum value in MBR or KPA and timeprogress with audible action signals.		
	Air flow rate of pump 40 L/Min.; Vacuum		
	Adjustable vacuum range 0.02 MPa - 0.09 MPs (150 - 680 mmHg)		
	Noise ≤ 60 dB		

	The unit equipped with reusable and autoclavable: Storage bottle 2500 ml x 2 pcs in glass with lid and doublesocket nipple Inline filter Hose for extraction cups		
	Hose holder Medical Grade Silicon Cups one each of 50mm and 60mm Bacterial Filter 5 nos. Vapour sterilizeable (up to 136ºC) 6mm inner-diameter silicone suction tube 5metre		
	Accessories, spares and consumables		
	All standard accessories, consumables and parts required tooperate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders mustspecify the quantity of every item included in their offer (including items not specified above).		
	Operating Environment		
	The product offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Power supply: 220 240 V AC, 50Hz fitted with appropriate plug.The power cable must be at least 3 metres in length.		
	Standards and Safety Requirements		
	Should have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	User Training		
	The supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shallinclude the use of operational functions of the equipment, as wellas routine checks and maintenance expected by users.		
	Warranty		
	The comprehensive warranty period for this item shall be at least1 year after acceptance of the Goods.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
	The supplier must arrange for the equipment to be installed and calibrated by certified or qualified personnel; any prerequisites forinstallation to be communicated to the purchaser in advance, in detail.		
	Documentation		
	User (Operating) manual in English. *(To be provided during the time of installation.)*		

	Service (Technical / Maintenance) manual in English. *(To be provided during the time of installation.)*		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		

Oxygen Concentrator with all accessories

3	**Oxygen Concentrator with all accessories**	**15**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand:		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	Oxygen concentrator produces oxygen from ambient air.		
	Operational Requirements		
	Medical oxygen concentrators, used in hospitals or at home toproduce oxygen for patients.		
	System Configuration		
	Oxygen Concentrator set complete with all accessories.		
	Technical Specifications		
	The Oxygen Concentrator should be mobile, lightweight. Mainsoperated unit capable of supplying continuous oxygen from atmospheric air with a built-in purity measurement and Nebulizer.		
	Double flow splitter for Oxygen delivery		
	Should have LCD/LED screen to view the usage hours andtimer.		
	Adjustable Flow rate ranging 0.5 to 10 L/ min		
	Oxygen Purity shall be 93% ± 3%		
	Delivery pressure 3 to 7 PSI		
	Should have superior grade sieve		
	Should have facility for nebulization with tube and mask		
	Should have filters at different stages		
	Alarm for Low Oxygen Concentration, Power Failure,Compressor Failure, Pressure Cycle Failure etc		
	Filters for dust and bacteria		
	Low noise system < 55 dB		
	Should have timer function to set the timer ranging 0 to 99minutes for auto shut down		
	Delivery system for a maximum of two patients		
	Calibrated Oxygen purity indicator		
	The device should have in-built provision to place theaccessories.		

	Accessories, spares and consumables		
	Accessories: Humidifier Bottle---2 nos. Nasal cannula with extension tubing---2 Nos. Nasal adult cannula with 2m kink-resistant oxygen tubingwith standard connectors 4 Nos Nasal paediatric cannula with 2m kink-resistant oxygentubing with standard connectors 4 Nos Mask for adult and child, reusable: 02 setOxygen tube: 05 m Spare Oxygen filters: 02 pcs		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls etc., whatever is applicable, separatelyand it must be valid for at least 2 years.		
	Operating Environment		
	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.		
	Power supply: 220-230VAC, 50Hz fitted with appropriate plug.The power cable must be minimum 3 metres long.		
	Standards and Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Equipment safety standard should follow IEC 60601.		
	User Training		
	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.		
	Warranty		
	The Comprehensive warranty period for this item shall be atleast 1 year after acceptance of the Goods.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure regular planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required.		
	Installation Commissioning and Calibration		

	The supplier must arrange for the equipment to be installed and calibrated by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.		
	Documentation		
	User (Operating) manual in English. *(To be provided during thetime of installation.)*		
	Service (Technical / Maintenance) manual in English. *(To beprovided during the time of installation.)*		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		

Advanced Anaesthesia Machine with trolley

7	**Advanced Anaesthesia Machine with trolley**	**2**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand		
	Type / Model:		
	Country of Origin:		
	Description of Function:		
	Flexible anaesthesia workstation for performing and monitoring inhalation anaesthesia. Capable of low-flow techniques to minimize gas and anaesthetic agent consumption for economical day-to-day operation		
	Operational Requirements		
	It shall be suitable to be used for adult, child, paediatric up to neonatal age patients.		
	System Configuration		
	Anaesthesia machine with circle absorber, two vaporizerscomplete with accessories.		
	Technical Specifications		
	In-built ventilator with coloured TFT display		
	Integrated CO2 absorber.		
	In-built and integrated anaesthesia gas monitoring facility		
	Multi parameter monitor		
	Able to connect to central pipeline and there must be provision of one PIN Index Yoke to connect to one emergency gascylinder of O2 & N2O each		
	Powder coated steel trolley with 4 wheels 1 or more drawers		
	The front wheels must have locking device		
	Wheels electrically conductive		
	Mounting facility to mount other equipment		

	Machine must provide electronic gas mixing with digital controlfor O2, N2O and Air		
	Hypoxia guard design using the pin-valve mechanism orequivalent mechanism		
	The unit must equipped with integrated ratio system to maintain 25 Vol% O2 in fresh gas, on accidental opening of only N2O flowwith O2 valve closed, the ratio system must automatically Open O2 valve to maintain 25 Vol% O2 in fresh gas		
	Backup battery with 60 capacity minutes or greater		
	Adjustable pressure valve		
	Overpressure valve		
	DISS international standard pin gas connection to medical gaspipelines		
	Water & particle trap to the inlet central gas pipe-lineconnections of O2, N2O & AIR		
	Fully autoclavable patient module having anodized metalliccasing.		
	It must have 34°C heated patient module to deliver warm freshgas to patient to prevent condensation		
	Patient module:		
	Pressure graduated metallic APL valve		
	Inspiratory valve		
	Expiratory valve		
	Controlled room air valve		
	Active gas scavenging port		
	Compensations:		
	Circuit compliance and leakage		
	Volume or flow decoupling of fresh gas		
	Flow control inspiratory		
	CO2 absorber of 1.4 Kg : must be single/double chamber designhaving screw type threading for easy removal & re-fitting during the operation		
	O2 flush facility to give approximately 50 ltr/min flow		
	Common gas outlet for using open circuit		
	Easy change over from open circuit to closed circuit or vice-versa		
	Vaporisers equivalent to TEC-7: Isoflurane Sevoflurane Desflurane		
	Provision to connect two selectatec mount vaporizers		
	Ventilator:		
	Integrated microprocessor controlled		
	Pneumatically driven ventilator with bellows and the same bellows must be useful for pediatric and adult application, thusavoiding change of bellows		

	Ventilation modes: Manual Spontaneous CMV adult CMV child PCV adult PCV child SIMV PSV		
	I/E ratios: 1:1, 1:1.5, 1:2, 1:2.5, 1:3, 1:4, 1:5		
	I/E inverse ratios: 2:1, 3:1 & 4:1 (PCV)		
	PEEP: 0-15mbar ± 2mbar		
	Tidal volume: 20-1400 ml		
	Equipped with self-test routines		
	Automatic calibration of all sensors		
	Leak test and sensor test on start of the unit		
	High contrast color TFT Display		
	Display must indicate measured values: - O2 (Paramagnetic) - Real time capnograph		
	Anesthetic agents (Isoflurane/Sevoflurane/Desflurane)		
	Tidal Volume		
	Minute Volume		
	Frequency		
	PEEP		
	Mean pressure-in graphic form with numerical display		
	Anesthesia gas monitoring facility must based on side-stream technology, using infra red photometry principal & also it offer automatic anesthetic agent identification		
	In-built anaesthesia gas monitoring:		
	CO2 Et. & In: Display: 0-10%, 0-76 mmHg		
	Accuracy: +/-0,5 Vol% or +/-12% relative		
	Reaction time: <500 ms 150 ml/min		
	N2O In & Et.: Display: 0-100		
	Accuracy: +/-2 Vol% Or +8% relative		
	Reaction time: <500 ms 150 ml/min		
	O2 (paramagnetic) In & Et.: Display: 0-100%		
	Accuracy: +/-0.1%		
	Reaction time: <500 ms 150ml/min		
	Anesthetic agent:		
	Isoflurane: Display: 0-8.5 Vol%		
	Sevoflurane: Display: 0-10 Vol%		
	Desflurane: Display: 0-22%		
	Accuracy: 0-1.15% or +15% relative		
	It must have a display of MAC (Minimum Alveolar Concentration)		
	Alarms:		
	Display of error code		

	Visual and audibe		
	FiO2 (high and low)		
	Minute volume, high and low		
	Low O2 supply pressure		
	Power supply failure		
	High and low airway pressure		
	Apnea		
	Pressure or flow sensor failure		
	Leak alarm		
	HR limits		
	Arrythmia		
	ST segment limit		
	Concentration of anesthetic gases		
	Gas mixture		
	Fresh gas de-coupling or equivalent mechanism		
	Specifications for Multi Parameter Patient Monitor		
	Capable of Monitoring Heart rate, SPO2, NIBP, ECG, Temp, RRand IBP2		
	Display of 15" and above diagonal colour TFT display		
	8 waveform fields		
	Provisions to connect 3 or 5 Lead ECG cables		
	NIBP measurement by oscillometric method		
	Manual / automatic modes of measurement of NIBP		
	Measurement range of 20 to 250 mm Hg		
	Provision for two temperatures with display of T1 and T2		
	2 channel invasive blood pressure (IBP) measurement		
	Waveform IBP1 and IBP2		
	Respiration by impedance method		
	Nellcor /Masimo technology (or similar) to measure oxygensaturation for: Motion artifacts Low perfusion states like shock Bradycardia Hypothermia SPO2 measurement with plethysmograph		
	Digital value and perfusion index and SPO2 values with range50% to 100%		
	SPO2 values with range 50% to 100%		
	Alarm facility for HR limits, arrythmia, ST segment limit, and allother parameter limits		
	Accessories, spares and consumables		
	3 or 5 lead ECG cable with cords		
	SPO2 finger probe for adult and pediatric application		
	- SpO2 neonatal probe		
	NIBP cuff for conventional adult, extra-large for adult and forpediatric application		
	IBP reusable transducers with cable		
	Disposable IBP pressure transducers		

	Temperature probes		
	Disposable domes		
	Disposable adult and pediatric circuits		
	HME filters		
	Reusable and autoclavable canisters		
	Partial rebreathing circuit assembly (direct or adapter)		
	Semi-closed circuit that allows mechanical or manual ventilation		
	Support for rebreathing bag		
	Reusable "Y" piece		
	UPS (1,5- 2 hrs)		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable,separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to be stored and tooperate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate,Temperature, Humidity, etc.		
	Power supply: 220-240VAC, 50Hz fitted with appropriate plug.The power cable must be minimum 3 meters long.		
	Safe disposal system of waste anaesthetic gases must be eitherin place or must be recommended along with the bid if not available.		
	UPS of suitable rating conforming to international standards shall be supplied for minimum 1,5 2 hours backup for the entire system.		
	Standards and Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Equipment safety standard should follow IEC 60601, documentevidence shall be submitted for analysis and other purposes.		
	User Training		
	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 expectedby users.		
	Warranty		
	The comprehensive warranty period for this item shall be at least1 year after provisional acceptance of the Goods.		
	Maintenance Service During Warranty Period		

	During warranty period supplier must ensure regular preventive maintenance & corrective/breakdown maintenance wheneverrequired.		
	Installation and Commissioning		
	The supplier 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.		
	Documentation		
	User (Operating) manual in English. (To be provided during thetime of installation.)		
	Service (Technical / Maintenance) manual in English. (To beprovided during the time of installation.)		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		
	Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.		

Surgical Table

8	**Surgical Table**	**2**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand:		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	A mobile, mains electricity (AC-powered) hydraulic-mechanismtable designed to be adjusted to support a patient during manytypes of surgical interventions. The table surface consists of		
	many articulated sections that can be elevated or lowered forcontouring to accommodate numerous anatomical positions.		
	Operational requirements		
	• Allows separate movement of head, torso and legs • Allows overall height adjustment for ease of user access		
	System Configurations		
	Operate on AC power		
	Technical Specifications		
	At least 5 articulated sections: head, back, pelvis and 2 separatelegs sections.		
	Frame material: stainless steel 316/316L or other stainless steelwith greater corrosion resistance.		
	All the functions with a manual back up in case of no power or malfunctioning.		
	All control motors with no more than 24V driving current		

	The base will have the following controlled movements: a) vertical displacement: electrically and manual; b) longitudinal displacement: electrically and manual; c) Trendelenburg and reverse Trendelenburg; d) right and left lateral tilts		
	Vertical height movement range to include 0.72 to 1.1 m from floor level vertical height movement range to include 0.72 to 1.1m from floor level		
	Longitudinal displacement regulation range of at least of 250mm.		
	Controllable global movements to include up/down, forward/back, left/right and Trendelenburg and at least ±30 deg;reverse Trendelenburg -15 deg.		
	Individual movements to allow at least head +20 deg, leg raise/lower +20 / -90 deg; lateral tilt range at least +18º right/-18ºleft.		
	Minimum overall table dimensions: 1.8m long x 0.6m wide		
	Must accommodate patients up to at least 200 kg in all operatingpositions		
	Foot control		
	Lateral bars all along the table to hook for surgical accessories.		
	Patient complete fasten accessories.		
	Accessories, spares and consumables		
	Supplied with two armrests at least 0.4m long, that fit adjustablepositions on each side of table		
	Supplied with removable or foldable side restraints on each sideof table		
	Supplied with two leg slings and two vertical supports for legslings		
	Leg section of table to be removable to allow lithotomy position		
	Supplied with padded mattress, in sections that match layout oftable sections		
	All exposed metal parts to be constructed of stainless steel		
	All non-metal parts to be constructed of durable, waterproof,washable and antistatic material		
	No sharp edges or points to be present		
	Removable mattress covering antistatic, impermeable,washable, material.		
	Mattress covering in fire extinguishers material, resistant to corrosion, water, detergent soap, 70% ethylic alcohol solutionwith or without nitrite and to the hypochlorite of sodium.		
	Operating Environment		
	The system offered shall be designed to operate normally underthe conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Power supply: 100-240 VAC, Single-Phase, 50/60 Hz with appropriate plug fitted with 5m automatic retractable power cablefor easy connection to any wall outlet with protective ground conductor.		
	Standards & Safety Requirements		

	ISO 13485:2003 Medical devices -- Quality management systems -- Requirements for regulatory purposes (Australia,Canada and EU) ISO 14971:2007 Medical devices -- Application of risk management to medical devices IEC 60601-1:2012 Medicalelectrical equipment - Part 1: General requirements for basicsafety and essential performance IEC 60601-1-1:2000 Medical electrical equipment - Part 1-1:General requirements for safety - Collateral standard: Safetyrequirements for medical electrical systems		
	IEC 60601-1-2:2007 Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests IEC 60601-2-46 Ed. 2.0:2010 (b) Medical electrical equipment -Part 2-46: Particular requirements for basic safety and essentialperformance of operating tables		
	User Training		
	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 expectedby users.		
	Warranty		
	Comprehensive warranty for 1 year after acceptance.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance wheneverrequired.		
	Installation and Commissioning		
	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 thepurchaser in advance, in detail.		
	Documentation		
	User (Operating) manual in English.		
	Service (Technical / Maintenance) manual in English.		
	List of important spare parts and accessories with their partnumber and costing.		
	Certificate of calibration and inspection from factory.		

Operation Theatre Light, LED, Ceiling Mounted

9	**Operation Theatre Light, LED, Ceiling Mounted**	**2**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand:		

	Type / Model:		
	Country of Origin:		
	Description of Function		
	Surgical lights illuminate the surgical site for optimal visualizationof small, low-contrast objects at varying depths in incisions and body cavities.		
	Operational Requirements		
	It shall be latest LED technology shadow less operating light field with 2 units, one major dome and one satellite dome. Shall be a ceiling mounted light with flexible arm.		
	System Configuration		
	Operation Theatre Light, LED with all standard accessories.		
	Technical Specifications		
	Shall be LED with microprocessor-based technology.		
	Shall have single colour high performance LEDs with lifetimemore than 50,000 hours of operation.		
	It shall have dual dome with main light and satellite light.		
	Lux intensity: 130,000 Lux or above.		
	Light field diameter shall be above 24 cm or better		
	Colour temperature shall be between 4200-to-4500-degree K.		
	Colour rendering index shall not be less than 95.		
	Depth of illumination shall not be less than 100 cm.		
	Illumination adjustment 30% to 100%.		
	Height adjustment more than 1 metre.		
	Light field adjustment by autoclavable handle.		
	The light dome shall be compatible for laminar airflow.		
	Shall have stable illumination throughout the life period of thelight.		
	LED's must be of a single colour suitable for long-term maintenance and ease of replacement.		
	Temperature rise at the surgeon head level must be less than 2 ^{o}C.		
	Shall have control panel for light focusing adjustment controlledby handle.		
	The light dome must be compatible for laminar airflow such thatthe intensity of light shall be uniform during the surgery.		
	Minimum spring arm stroke of 500mm and minimum actionradius of the complete arm shall be1500mm or more.		
	Accessories, spares and consumables		
	Accessories: Autoclavable handle: 2 nos. for each dome		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		

	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable,separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to be stored and tooperate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Power supply: 220 240 VAC, 50Hz fitted with appropriate plug.The power cable must be at least 3 metre in length.		
	Shall provide suitable servo-controlled stabilizer/CVT.		
	Standards and Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Equipment safety standard should follow IEC 60601.		
	User Training		
	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.		
	Warranty		
	The Comprehensive warranty period for this item shall be atleast 1 year after acceptance of the Goods.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure regular planned preventive maintenance (PPM) and corrective/breakdownmaintenance whenever required.		
	Installation and Commissioning		
	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 thepurchaser in advance, in detail.		
	Documentation		
	User (Operating) manual in English. *(To be provided during thetime of installation.)*		
	Service (Technical / Maintenance) manual in English. *(To beprovided during the time of installation.)*		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		

Cardiopulmonary Bypass Machine

11	**Cardiopulmonary Bypass Machine**	**4**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand:		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	Cardiopulmonary assistance integrated system, used to deviatethe blood from the patients body during surgery, to an external circuit, that provides oxygen and blood flow to the patient, when the heart and lungs can not accomplish this tasks. Modularsystem		
	Operational Requirements		
	System Configuration		
	Technical Specifications		
	Main components:		
	Control panel unit		
	Main screen: LCD display, at least 140 mm diagonal size		
	Touch screen or selector knob operation		
	Must allow operation and control of all controlled parameters anddevices from the main screen		
	Up to 4 monitored pressures		
	Up to 4 monitored temperatures		
	Blood level monitoring		
	Bubble detection		
	Alarms for all monitored parameters, including: power fail,cardioplegia, etc		
	Cardioplegia:		
	Cardioplegia monitor, modular or integrated to control panel unit		
	Monitored parameters: Volume, pressure, temperature		
	With integrated timers		
	Pump Unit		
	At least 3 high efficiency single roller pumps, and 1 double rollerpump, with magnetic heads, each with an independent screen to show alarm messages, rpms and blood flow		
	Can be controlled via control panel unit or through each pumpcontrol panel		
	Selectable master-slave mode		
	Trolley mounted		
	Stainless steel housing		
	Single roller flow range: at least 0 - 10 lpm		
	Single roller pump approx weight: 14 kg		
	Double roller pump approx weight: 18 kg		
	With emergency lever system, in case of total power fail		
	Bubble detection sensor		
	Flow sensor		

	Gas blender		
	Two gas blender: Oxygen and air		
	Selectable oxygen range from 21 % to 100%		
	Online blood gas monitoring		
	Control panel unit interfaced module or independent monitoringunit.		
	Data transfer port		
	Internal backup battery designed to supply power to the controlpanel for at least 25 minutes in the event of a power grid failure		
	LCD display, at least 200 mm diagonal size with touch screen orrotary knob control		
	Monitored parameters: Oxygen partial pressure, oxygen saturation, arterial temperature, venous temperature, hematocrit		
	Centrifugal pump		
	Compatible with the CPB unit		
	Integrated display for parameter visualization and control		
	RPM adjustment range: 0 - 3500 or better		
	Pressure control range: -90 to + 990 mmHg		
	Flow range control, at least: 0 - 7 lpm		
	Heat Exchanger		
	With the following independent outputs: One for the Oxygenator,one for Cardioplegia, one for the patients heat blancket		
	Water reservoir tank:at least 14 lts		
	LCD display, with touch screen or rotary knob control		
	Controlled parameters: Temperature, flow, pressure		
	Temperature control range: 3 - 40º C approx		
	Temperature measurement precision: ≤ ± 5 ºC		
	Integrated UV lamp to prevent algae o fungal growth		
	Unit weight ≤ 160 kg		
	Ice generation capable		
	Transport trolley		
	Portable system to allow easy movement inside and outsidehospital environments		
	Stainless steel housing		
	Internal backup battery designed to supply power to the controlpanel for at least 90 minutes in the event of a power grid failure		
	Trays for additional medical equipment mounting		
	With equipment support poles, at least 3 vertical and 1 horizontal screwed to the first 3 vertical		
	With 4 castors, two of them with brakes, antistatic, at least140mm diameter		
	Accessories, spares and consumables		

	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable,separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to be stored and tooperate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Power supply: 220 240 VAC, 50Hz fitted with appropriate plug.The power cable must be at least 3 metre in length.		
	Shall provide suitable servo-controlled stabilizer/CVT.		
	Standards and Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Equipment safety standard should follow IEC 60601.		
	User Training		
	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.		
	Warranty		
	The Comprehensive warranty period for this item shall be atleast 1 year after acceptance of the Goods.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure regular planned preventive maintenance (PPM) and corrective/breakdownmaintenance whenever required.		
	Installation and Commissioning		
	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.		
	Documentation		
	User (Operating) manual in English. *(To be provided during thetime of installation.)*		
	Service (Technical / Maintenance) manual in English. *(To beprovided during the time of installation.)*		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		

Laryngoscope Set (Macintosh or equivalent)

12	**Laryngoscope Set (Macintosh or equivalent)**	**2**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Purchaser's Specifications		
	Laryngoscope Set (Macintosh or equivalent)		
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
	Description of Function		
	Laryngoscope set to facilitate tracheal intubation during general anaesthesia or cardiopulmonary resuscitation or for procedures on the larynx or other parts of the upper tracheobronchial tree.		
	Operational Requirements		
	Battery powered laryngoscope kit		
	System Configuration		
	Battery operated Laryngoscope set (Macintosh or equivalent)		
	Technical Specifications		
	Blades to be made of surgical grade stainless steel		
	Curved and straight blade types		
	Stainless Steel blades:		
	- Extra large		
	- Large		
	- Medium		
	- Adolescent		
	- Children		
	- Infants		
	To work with C or D batteries		
	Clip-on quick release mechanism for blades, which also provides electrical contact for blade light.		
	Light to be activated when blade is engaged.		
	Handle/battery unit to be made of non-ferrous metal.		
	Handle size fits C-size batteries		
	Handle autoclaveable at 134ºC		
	Accessories, spares and consumables		
	To be supplied with 3 spare bulbs.		
	To be supplied with case		
	To be supplied with replacement battery set		

	To be supplied with one of each of following blades:Neonate size 00 Adult small size 3 Adult medium size 4 Adult large size 5 1 x storage case		
	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 quantityand details of any items included in this offer which have not been specified in this Technical Specifications Form.		
	Operating Environment		
	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.		
	Must operate on C" Size Lithium Batteries		
	Standards and Safety Requirements		
	Should have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Compatible with all ISO 7376 Compliant Conventional SystemBlades.		
	User Training		
	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shallinclude the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.		

	Warranty		
	Warranty for 1year after acceptance.		
	Maintenance Service During Warranty Period		
	Standard warranty conditions are applicable.		
	Installation and Commissioning		
	Must supply preassembled unit, ready to use.		
	Documentation		
	User's and Techn cal (Maintenance) manua in English		

USG Machine, Portable, with battery back-up, trolley, printer, and probes

13	**USG Machine, Portable, with battery back-up, trolley,printer, and three probes**	**4**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand:		
	Type/Model:		

	Country of Origin:		
	Description of Functions		
	The system must be state of the art with fully digital technology equipment to incorporate the facility of 2D, M-Mode, CDI, PW- Doppler, CW-Doppler, Power Doppler, directional power Dopplerfor abdomen, Cerebrovascular, peripheral vascular, adult trans- cranial & superficial parts imaging like breast, scrotum, thyroid, musculoskeletal exam and etc.		
	Operational Requirements		
	It shall operate on AC power supply. The machine is intended tobe carried to the patient ward with the inbuilt battery system to examine patients who could not come to USG room		
	System Configurations		
	Digital colour Doppler ultrasound machine with high-resolutionimaging.		
	1 unit of broad bandwidth of 2 - 6 MHz, convex array probe forOB/GYN and abdominal application		
	Trans-vaginal probe with frequency range between 4 to 9 MHz -1 unit.		
	Linear probe with frequency range between 5 to 10 MHz, with colour, power & spectral Doppler capabilities for vascular & smallparts - 1 unit.		
	System shall come with main unit, probes and B/W thermalprinter		
	Bidder shall indicate brand and model information here and provide technical data document for major components specifiedabove.		
	Technical Specifications		
	It shall be fully digital technology with digital beam former andshall have minimum 65000 digitally processed channels. Technical data sheet must be enclosed in technical bid tosupport the number of digitally processed channels on the system.		
	Monitor shall be 17" high-definition LED monitor with articulatedarm		
	System shall be offered with a very high dynamic range of atleast 250 dB to pick up subtle echoes. *(Dynamic range in dB must be clearly mentioned.)*		
	Operating modes B-mode, M-Mode, B/M Mode, Doppler Mode,Colour flow, power Doppler, DCA/DPA, Contrast Imaging, B/Colour flow, PW Doppler, CW Doppler.		
	System shall support broadband probes spanning a frequency of1-12MHz.		
	Image storage facility on in-built hard disc (>20 GB), MOD/CD/DVD-RW facility should be available.		
	System shall be offered with Speckle Reduction Imaging: Image processing technique to remove speckles and clutter artefacts.		
	Measurements & calculation package for abdominal, obstetrics /gynaecology, and urology, vascular should be available.		

	System should be capable of scanning depth of minimum of 30cms. *(Please attach the technical bid clearly stating the scanningdepth, in the offered system.)*		
	System should have auto IMT measuring quantification tool.		
	System shall be offered with a 2D frame rate of at least 300 frames/second.		
	Automatic real time & frozen tracing of instantaneous peak velocity & instantaneous mean velocity (or frequency) should beavailable.		
	Triplex Imaging should be standard on the system.		
	The system shall weigh less than 5 kilograms.		
	The system shall have fast boot-uptime of 30 seconds.		
	The system shall be mounted on a dock-able cart during movement of the machine.		
	Accessories, Spare Parts and Consumables		
	5 bottles of ultrasound gel and 10 rolls B/W thermal paper		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls etc., whatever is applicable, separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to be stored and tooperate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Power supply: 220 240 VAC, 50Hz fitted with appropriate plug.The power cable must be at least 3 metre in length.		
	UPS of suitable rating conforming to international standardsshall be supplied for minimum 30 min. backup for the entiresystem.		
	Standards & Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Equipment safety standard should follow IEC 60601.		
	User Training		
	The Supplier shall conduct user training for this equipment toenable operators to use the equipment properly. The trainingshall include the use of all operational functions of the		
	equipment, as well as routine checks and maintenance expectedby users.		
	Warranty		
	The Comprehensive warranty period for this item shall be atleast 1 year after acceptance of the Goods.		
	Maintenance Service During Warranty Period		

	During the warranty period supplier must ensure regular planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
	The supplier must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installationto be communicated to the purchaser in advance, in detail.		
	Documentation		
	User (Operating) manual in English. (to be submitted during thetime of installation)		
	Service (Technical / Maintenance) manual in English. (to besubmitted during the time of installation)		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		

Portable Colour Doppler Ultrasound Machine

15	**Portable Colour Doppler Ultrasound Machine**	**2**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand:		
	Type/Model:		
	Country of Origin:		
	Description of Functions		
	For multipurpose ultrasound imaging, for emergency medicineultrasound imaging		
	Operational Requirements		
	System Configurations		
	Portable		
	Technical Specifications		
	Synthetic Doppler DF method with "Smooth Summing		
	Frequency range 100 - 1,000 MHz		
	Accuracy < 2.5 degrees rms (100 - 1000 MHz)		
	Resolution 0.1 degrees		
	Sampling rate 2 samples per second		
	Sensitivity -123 dBm (depending on FM receiver)		
	Average Adjustable from 1 to 20 samples		
	RF pulse detection 100 ms minimum		
	Travel frequency Adjustable (250, 500, 1000, 2000 Hz)		
	Voltage range 11 - 14 VDC		
	Power 6.5 W at 12 V DC (processor and antenna)		
	Accessories, Spare Parts and Consumables		
	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. Biddersmust specify the quantity of every item included in their offer(including items not specified above).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls etc., whatever is applicable, separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to be stored and tooperate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Power supply: 220 240 VAC, 50Hz fitted with appropriate plug.The power cable must be at least 3 metre in length.		
	Standards & Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices ANDCE (EEC Directives) or USFDA approved product certificate.		
	Equipment safety standard should follow IEC 60601.		
	User Training		
	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.		
	Warranty		
	The Comprehensive warranty period for this item shall be atleast 1 year after acceptance of the Goods.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure regular planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
	The supplier must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installationto be communicated to the purchaser in advance, in detail.		
	Documentation		
	User (Operating) manual in English. (to be submitted during thetime of installation)		
	Service (Technical / Maintenance) manual in English. (to besubmitted during the time of installation)		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		

Sphygmomanometer

20	**Sphygmomanometer**	**10**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Brand		
	Type/Model		
	Country of Origin		
	Description of Function		
	Sphygmomanometer is a device used to measure blood pressure, composed of an inflatable cuff to restrict blood flow, and amechanical manometer to measure the pressure.		
	Operational Requirements		
	Aneroid sphygmomanometer having a dial to show clear numbersand pointer / needle for measurement of pressure.		
	System Configuration		
	Aneroid sphygmomanometer Cuffs for child size and for adult size (regular)Inflation bulb Carrying pouch		
	Technical Specifications		
	Type aneroid		
	Inflation system		
	One-handed manometer		
	Pressure gauge: ABS		
	Cuff material: Cotton/nylon		
	Cuff size: 54*14,5 cm		
	Ampoule H PUV/ Latex		
	Bladder: PVC/ Latex		
	Bladder size: 22*12cm		
	Measuring range: 0-300 mmHg		
	Accuracy: +/-3mmHg		
	Subdivision: 2mmHg		
	With standard valve spring		
	Standard gauge.		
	System Configuration Accessories, spares and consumables		
	Supplied with ABS plastic housing		
	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.		

	The bidder shall quote rates for spare parts, consumables, calibrators & controls etc., whatever is applicable, separately and itmust be valid for at least 2 years.		
	Operating Environment		
	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.		
	Standards and Safety Requirements		
	Must submit ISO 9001 or ISO 13485:2003/AC:2007 **AND**		
	User Training		
	Not applicable.		
	Warranty		
	Warranty for 1 year after acceptance.		
	Maintenance Service During Warranty Period		
	Standard warranty conditions are applicable.		
	Installation and Commissioning		
	Must supply preassembled unit, ready to use.		
	Documentation		
	Users/Instructions manual shall be provided in English		

Medical Refrigerator with Freezing Compartment

22	**Medical Refrigerator with Freezing Compartment**	**2**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Purchaser's Specifications		
	Refrigerator with freezing compartment		
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
	Description of Function		
	Refrigerator with freezing compartment maintains two distinct temperature zones. The refrigerator zone is for chilling above zeroand freezer zone is for sub-zero temperatures.		
	Operational Requirements		
	Refrigerator is required to operate at temperatures from +2 ^{0}C to +8 ^{0}C and Freezer to operate between -10 ^{0}C to 20 ^{0}C.		
	Floor standing model, with lock and handle supplied with two keys.		
	System Configuration		

	The system consists of: Refrigerator with freezing compartment CFC freeFloor standing model Digital display Adjustable shelves/drawers Alarm system Voltage corrector/stabilizer		
	Technical Specifications		
	Storage Capacity/Volume: Refrigerator: approx. 200 litres;Freezer: approx. 100 litres.		
	Corrosion resistant construction, preferably stainless steel.		
	Type: Compression Cycled CFC-Free Refrigerant (both for refrigeration andinsulation) R134A Cooling coil of copper Spark free		
	Compressor: Power saver compressor.		
	It shall have adjustments for uneven bases. The adjustments shall be easy to use like rotating a screw on the legs of the base.		
	Spill proof adjustable shelves/drawers.		
	It shall have microprocessor based control system with digitaldisplay.		
	Individual display for temperature inside the freezer and therefrigerator.		
	Alarm for Low/High temperature inside freezer and the fridge.		
	Frost free system.		
	Internal illumination.		
	Alarm: Door locks/door open alarm, low/high temperature inside freezerand refrigerator.		
	Accessories, spares and consumables		
	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 notbeen specified in this Technical Specifications Form.		
	Operating Environment		
	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.		
	Power supply: 220-240VAC, 50Hz fitted with appropriate plug type D round 3 pins. The power cable must be minimum 3metres long.		
	Shall provide Voltage corrector/stabilizer of appropriate ratings.		

	Standards and Safety Requirements		
	Must submit ISO 9001 or ISO 13485:2003/AC: 2007 **AND**		
	CE or USFDA approved product certificate.		
	Shall meet IEC 60335-1 and -2-24 electrical safety standards for refrigerators and freezers.		
	User Training		
	Not applicable.		
	Warranty		
	Comprehensive warranty for 1 year after acceptance.		
	Maintenance Service During Warranty Period		
	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
	Supplier must accomplish proper installation & commissioning ofthe equipment on site.		
	Documentation		
	User (Operating) manual in English.		
	Service (Technical / Maintenance) manual in English.		
	List of important spare parts and accessories with their partnumbers and costing.		

Anaesthesia Machine with trolley

27	**Anaesthesia Machine with trolley**	**2**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand		
	Type / Model:		
	Country of Origin:		
	Description of Function:		
	Flexible anaesthesia workstation for performing and monitoringinhalation anaesthesia.		
	Operational Requirements		
	It shall be suitable to be used for adult, child, paediatric up toneonatal age patients.		
	System Configuration		
	Anaesthesia machine complete with accessories.		
	Technical Specifications		
	Arrythmia		
	ST segment limit		
	Concentration of anesthetic gases		
	Gas mixture		
	Fresh gas de-coupling or equivalent mechanism		
	Specifications for Multi Parameter Patient Monitor		

	Capable of Monitoring Heart rate, SPO2, NIBP, ECG, Temp, RRand IBP2		
	Display of 15" and above diagonal colour TFT display		
	8 waveform fields		
	Provisions to connect 3 or 5 Lead ECG cables		
	NIBP measurement by oscillometric method		
	Manual / automatic modes of measurement of NIBP		
	Measurement range of 20 to 250 mm Hg		
	Provision for two temperatures with display of T1 and T2		
	2 channel invasive blood pressure (IBP) measurement		
	Waveform IBP1 and IBP2		
	Respiration by impedance method		
	Nellcor /Masimo technology (or similar) to measure oxygensaturation for:		
	Motion artifacts		
	Low perfusion states like shock		
	Bradycardia		
	Hypothermia		
	SPO2 measurement with plethysmograph		
	Digital value and perfusion index and SPO2 values with range50% to 100%		
	SPO2 values with range 50% to 100%		
	Alarm facility for HR limits, arrythmia, ST segment limit, and allother parameter limits		
	Accessories, spares and consumables		
	3 or 5 lead ECG cable with cords		
	SPO2 finger probe for adult and pediatric application		
	SpO2 neonatal probe		
	NIBP cuff for conventional adult, extra-large for adult and forpediatric application		
	IBP reusable transducers with cable		
	Disposable IBP pressure transducers		
	Temperature probes		
	Disposable domes		
	Disposable adult and pediatric circuits		
	HME filters		
	Reusable and autoclavable canisters		
	Partial rebreathing circuit assembly (direct or adapter)		
	Semi-closed circuit that allows mechanical or manual ventilation		
	Support for rebreathing bag		
	Reusable "Y" piece		
	UPS (1,5- 2 hrs)		

	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable, separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to be stored and tooperate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Power supply: 220-240VAC, 50Hz fitted with appropriate plug.The power cable must be minimum 3 meters long.		
	Safe disposal system of waste anaesthetic gases must be eitherin place or must be recommended along with the bid if not available.		
	UPS of suitable rating conforming to international standardsshall be supplied for minimum 1,5 2 hours backup for the entire system.		
	Standards and Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Equipment safety standard should follow IEC 60601, documentevidence shall be submitted for analysis and other purposes.		
	User Training		
	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 expectedby users.		
	Warranty		
	The comprehensive warranty period for this item shall be at least1 year after provisional acceptance of the Goods.		
	Maintenance Service During Warranty Period		
	During warranty period supplier must ensure regular preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
	The supplier 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.		
	Documentation		
	User (Operating) manual in English. (To be provided during thetime of installation.)		

	Service (Technical / Maintenance) manual in English. (To beprovided during the time of installation.)		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		

	Logbook with instruction for daily, weekly, monthly and quarterly maintenance checklist.		

Cardiac Monitor

28	**Cardiac Monitor**	**7**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand		
	Type / Model:		
	Country of Origin:		
	Description of Function:		
	Cardiac bedside patient monitor-to-monitor physiological parameters of patients in the critical care units or operatingtheatres		
	Operational Requirements		
	It shall operate on AC power supply as well as built-in battery		
	System Configuration		
	Patient Bedside colour with ECG, RESP, SpO2, NIBP, 2-TEMP,PR; arrhythmia analysis and ST segment analysis		
	Technical Specifications		
	Monitor: multi-parameter		
	Display: high-resolution TFT color, 7-inch screen, 5 tracechannels.		
	Standard parameters: ECG, RESP, SpO2, NIBP, 2-TEMP, PR;arrhythmia analysis and ST segment analysis		
	Measurement parameters		
	- Heart Rate measurement range: min 30 280 bpm		
	- Analysis/alarming in case severe arrhythmia and / or artifactsare detected		
	- ST segment analysis		
	- ESU (electrostatic unit) filter on ECG		
	- Pacemaker impulse detection		
	- Patient defibrillation protection filter		
	- Lead broken warning		
	Heart rate :		
	Selectable source from ECG, SpO2, arterial pressure		
	Peripheral pulse measurement range: min 30-280 bpm		
	Adjustable volume for peripheral pulse tone –		
	Respiration :		

	Measurement method: through ECG electrodes		
	Measurement approx. range: adult/pediatric min 0 110 resp/min, neonates 0-170 resp/min.		
	Respiration curve display		
	SpO2 (Pulsoximetry) :		
	Oxygen saturation measuring range: 0 -100%		
	SpO2 measurement algorithm designed to filter patient movement and provide accurate reading even with low perfusion conditions.		
	Pletismographic curve display		
	NIBP (Non Invasive Blood Pressure):		
	Measurement method: Oscillometric		
	Manual and automatic mode		
	Adjustable automatic time measurement interval		
	Systolic, diastolic and mean pressure values must besimultaneously displayed on the main screen		
	Systolic measuring range for adult: minimum 50-230 mm Hg		
	Mean measuring range for adult : minimum 50-230 mm Hg		
	Diastolic measuring range for adult : minimum 30-200 mm Hg		
	Alarm levels for systolic, diastolic and mean pressure, adjustable		
	Temperature :		
	Two channels independently measured		
	Measurement range for the temperature: approx. 15-45°C		
	Resolution: 0,1 °C		
	Memory: - up to 800 groups of parameter data & 24-hour ECGstorage and recall; - 480 hours of graphical and tabular trends for all parameters		
	Display: simultaneous ECG waveforms on 7 channels. -Protection: against interference from defibrillators, electrosurgical knives.		
	Measurement mode: adult or pediatric.		
	Alarm types: audible and visual; networking capability.		
	Accessories, spares and consumables		
	Standard accessories: 1 ECG cable, 1 SpO2 probe, 1 AC adapter, 1 Li-ion battery, 1 NIBP cuff, body surface temperaturesensor, 1 power cable, 10 disposable pressure electrodes and user manual		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable,separately and it must be valid for at least 2 years.		
	Operating Environment		

	The product offered shall be designed to be stored and tooperate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate,Temperature, Humidity, etc.		
	Power supply: 220-240VAC, 50Hz fitted with appropriate plug.The power cable must be minimum 3 meters long.		
	Safe disposal system of waste anaesthetic gases must be eitherin place or must be recommended along with the bid if not available.		
	UPS of suitable rating conforming to international standardsshall be supplied for minimum 1,5 2 hours backup for the entire system.		
	Standards and Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Equipment safety standard should follow IEC 60601, documentevidence shall be submitted for analysis and other purposes.		
	User Training		
	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.		
	Warranty		
	The comprehensive warranty period for this item shall be at least1 year after provisional acceptance of the Goods.		
	Maintenance Service During Warranty Period		
	During warranty period supplier must ensure regular preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
	The supplier 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.		
	Documentation		
	User (Operating) manual in English. (To be provided during thetime of installation.)		
	Service (Technical / Maintenance) manual in English. (To beprovided during the time of installation.)		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		
	Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.		

Light, Operation Theatre, LED, Ceiling Mounted

29	**Light, Operation Theatre, LED, Ceiling Mounted**	**2**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand:		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	Surgical lights illuminate the surgical site for optimal visualizationof small, low-contrast objects at varying depths in incisions and body cavities.		
	Operational Requirements		
	Shall operate on mains electric supply.		
	System Configuration		
	Examination lamp with all standard accessories.		
	Technical Specifications		
	Shall be LED with microprocessor-based technology		
	Lux intensity at 1 metre: 50,000 Lux or above.		
	Light intensity: 50 000 Lux at 1 metre; 70 000 Lux at 0.80 metre; 100 000 Lux at 0.50 metre.		
	Colour temperature shall be: 4750 °K		
	High-performance LED lighting with infrared-free cold light.		
	Shall have single colour high performance LEDs with lifetimemore than 50,000 hours of operation.		
	Ergonomic, removable and sterilizable handle.		
	Multi-position arm and head adaptable to any situation.		
	On/off switch on lamp head.		
	Working field diameter: ø10 cm at a distance of 50 cm; ø13 cmat a distance of 100 cm.		
	Material: Epoxy aluminum.		
	Accessories, spares and consumables		
	Accessories: Autoclavable handle: 2 nos		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls etc., whatever is applicable, separatelyand it must be valid for at least 2 years.		
	Operating Environment		

	The product offered shall be designed to store and to operatenormally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature,Humidity, etc.		
	Power supply: 220 240 VAC, 50Hz fitted with appropriate plug.The power cable must be at least 3 metre in length.		
	Standards and Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Electrical safety conforms to standards for electrical safety IEC60601-1 General requirement for Electrical safety of Medical Equipment.		
	User Training		
	The supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of operational functions of the equipment, as well as routine checks and maintenance expected by users.		
	Warranty		
	The comprehensive warranty period for this item shall be at least1 year after provisional acceptance of the Goods.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure regular planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
	Must supply preassembled unit, ready to use.		
	Documentation		
	User (Operating) manual in English. *(To be provided during thetime of installation.)*		
	Service (Technical / Maintenance) manual in English. *(To beprovided during the time of installation.)*		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		

Electrosurgical Unit with all accessories, with trolley

30	**Electrosurgical Unit with all accessories, with trolley**	**2**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand:		
	Type/Model:		
	Country of Origin:		
	Description of Functions		
	A 300W diathermy machine (electrosurgical unit)		
	Operational Requirements		

	It shall operate on AC power supply in the operating theatre.		
	System Configurations		
	Diathermy Machine (Electrosurgical) 300W with completeaccessories.		
	Technical Specifications		
	Nominal ⊣⊢ output: 300W at ~400Ω		
	At least 2 modes of operation: mono-polar cutting and mono-polar/bipolar coagulation.		
	Mono-polar cutting modes shall have different level of effectsfrom pure cutting to blend cutting (cutting with haemostasis).		
	Come with 3 mono-polar coagulation modes: soft, forced andspray.		
	Desiccate mode for low voltage contact coagulation suitable indelicate tissue work		
	Fulgurate mode for efficient non-contact coagulation in mostapplications.		
	Spray mode for coagulation large tissue areas with minimumdepth of necrosis.		
	Come with 3 bipolar modes: precise, standard and macro orequivalent.		
	Precise mode to have fine control of desiccation in delicatetissue.		
	Standard mode for applications at low voltage to preventsparking.		
	Macro mode for applications on tissue with high resistance.		
	Control panel with digital setting and display of power of modesused.		
	All mono-polar and bipolar modes shall be controllable by handswitch and footswitch.		
	Bipolar mode can be activated by either foot pedal and / or autocoagulate by using forceps.		
	Footswitches shall be splash proof and unaffected by commonOR fluid spills, easy to clean, have suitable mechanical protection against accidental pedal depression and Switches shall not be susceptible to sticking in the ON position.		
	Unit must have automatic power regulating feature to always keep minimum current to the patient throughout the procedures.		
	Shall come with Return Electrode Contact Quality Monitors (RECQMs) to monitor the quality of electrode-skin contact to eliminate the risk of patient's burn. It shall give audio-visual alarm and deactivate output if contact between patient and electrode is loosened or disconnected.		
	Come with output Leakage controller.		
	Shall have over current protection.		
	Shall be able to be activated from only one output at a time.		
	Must have an undefeatable audible activation-toneindicator/alarm.		
	Accessories, Spare Parts and Consumables		
	The unit shall come with trolley well designed to fit the generatorwith drawers for keeping the accessories		

	One unit/ set of explosion-protected foot pedal for mono-polarand bipolar operation		
	Universal adapter to fit and use with most commonelectrosurgical instruments/ hand pieces x 1 set. Bidder shall indicate the brand of which the adapter iscompatible with		
	Come with reusable standard mono-polar pencil/ handle with 2-button switch - 1 unit. Bidder must specify the type, size of pencil offered		
	Reusable mono-polar cord x 1 set.		
	Come with 2 types of reusable standard mono-polar electrodes,1 piece/ type of electrode. Bidder must specify the type, size of electrodes offered.		
	Come with 1 piece of reusable standard mono-polar coagulationforceps.		
	Come with 1 piece of reusable standard bipolar forceps withhand switch.		
	Reusable bipolar cord x 1 set.		
	Reusable connecting cable for patient electrode x 1 set		
	Patient return electrode for Adult & Child, 50 pieces each		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable, separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to be stored and tooperate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Power supply: 220-240V AC, 50Hz fitted with appropriate plug.The power cable must be at least 3 metres in length.		
	Standards & Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Shall meet IEC 60601-2-2 Medical Electrical Equipment - PART2-2: Particular Requirements for the Safety of High Frequency Surgical Equipment.		
	User Training:		
	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 expectedby users.		
	Warranty		

	The comprehensive warranty period for this item shall be at least1 year after acceptance of the Goods.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure regular planned preventive maintenance (PPM) and corrective/breakdownmaintenance whenever required.		
	Installation and Commissioning		
	The supplier must arrange for the equipment to be installed and calibrated by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance,in detail.		
	Documentation		
	User (Operating) manual in English. *(To be provided during thetime of installation.)*		
	Service (Technical / Maintenance) manual in English. *(To beprovided during the time of installation.)*		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		

Consultation/Office Executive Revolving Chair

33	**Consultation/Office Executive Revolving Chair**	**22**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	Operational Requirements		
	System Configuration		
	Technical Specifications		
	Seat and backrest in shock-resistant ABS: 69 x70x1130/1260 atleast		
	Height-adjustable by 13 cm pneumatic jack		
	Fixed headrest		
	Polypropylene back and seat		
	Plain black leather upholstery		
	5-star base on swivel castors		
	castors		
	Shock-absorbing shell and armrests in		
	polyurethane		
	Accessories, spares and consumables		

	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable,separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to store and to operatenormally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standards and Safety Requirements		
	User Training		
	Not applicable		
	Warranty		
	The comprehensive warranty period for this item shall be at least1 year after provisional acceptance of the Goods.		
	Maintenance Service during Warranty Period		
	During warranty period supplier must ensure regular preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
	The supplier 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.		

Cabinet with Return

34	**Cabinet with Return**	**4**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	Operational Requirements		
	System Configuration		
	Technical Specifications		
	Wood fiber with dark mahogany-colored melamine veneer		
	Irregular-shaped top, at least 2.5 cm thick		
	Dimensions (cm): at least 180x100x75 minimum		
	Return		

	Rectangular mobile credenza on castors with superimposed locker and filing cabinet and two side doors; dimensions (cm):100x53x65 at least		
	Cabinet: rectangular on castors		
	Dimensions: at least 50x48x60H, with three drawers mounted onmetal runners with nylon bearings and centralized lock		
	Accessories, spares and consumables		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable,separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to store and to operatenormally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature,Humidity, etc.		
	Standards and Safety Requirements		
	User Training		
	Not applicable.		
	Warranty		
	The comprehensive warranty period for this item shall be at least1 year after provisional acceptance of the Goods.		
	Maintenance Service during Warranty Period		
	During warranty period supplier must ensure regular preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
	The supplier must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to thepurchaser in advance, in detail.		

Autoclave Electric

35	**Autoclave Electric, 15 Liters with All Accessories**	**1**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand		
	Type / Model:		
	Country of Origin:		
	Description of Function		

	An autoclave is a machine that uses steam under pressure to killharmful bacteria, viruses, fungi, and spores on items that are placed inside a pressure vessel. The items are heated to an appropriate sterilization temperature for a given amount of time.		
	Operational requirements		
	Pressure cooker style autoclave, operating temperature 121 ºC134 ºC for the treatment of waste in healthcare facilities		
	System Configurations		
	Metal vessel with high-pressure seal suitable for sterilisationunder superheated steam		
	Technical Specifications		
	Sterilizing pressure 15 psi to 20psi		
	Shall be used with distilled water		
	Made of heavy cast aluminium.		
	Aluminium alloy seamless inset container.		
	Inner Chamber equipped with:		
	· Aluminium container: plain basket with handles.		
	· Aluminium inner container rack.		
	· Heating element.		
	· Stainless steel support/stand protecting the heating element.		
	· Scored water level mark.		
	Chamber dimensions:		
	Bidder shall specify the chamber dimensions and sterilizationcapacity.		
	Removable cover equipped with:		
	· Bakelite handle.		
	· Dial type geared steam gauge, graduated in kg / cm^2,		
	· PSI and degrees Fahrenheit, and with colour-coded gauge showing sterilizing zone (green) and caution zone (red).		
	· Control valve and flexible metal exhaust tube.		
	· Excess pressure relief valve and over-pressure rubber plug.		
	Microprocessor control, LED display		
	Hand lock door		
	Relief valve in case of over pressure		
	Pressure or temperature over load protection		
	Alarm for system failure		
	Accessories, spares and consumables		
	Stainless steel basket: D:400 x H:220mm		
	Stainless steel basket: D:400 x H:400mm		
	Spare lid gasket, heating element and fuses to be included		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).		

	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable,separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to be stored and tooperate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standard: 220V±10%,50/60Hz;1-Phase fitted with appropriateplug.		
	Standards & Safety Requirements		
	Sterillization Class: Class N (according to EN 13060 standard)		
	User Training		
	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 expectedby users.		
	Warranty		
	Comprehensive warranty for 1 year after acceptance.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
	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 thepurchaser in advance, in detail.		
	Documentation		
	User (Operating) manual in English.		
	Service (Technical / Maintenance) manual in English.		
	List of important spare parts and accessories with their partnumber and costing.		
	Certificate of calibration and inspection from factory.		

Vacuum Pump

36	**Vacuum Pump**	**2**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	Operational requirements		

	System Configurations		
	Technical Specifications		
	Volume flow: 25 m^3/h		
	Absolute vacuum: 150 mbar		
	Power 50 Hz: 0.75 kW		
	Noise level: 62.0 dB(A)		
	Volumetric flow: 30 m^3/h		
	Self-lubricating		
	100% dry-running (oil-less) operation		
	Air cooled		
	Accessories, spares and consumables		
	All standard accessories, consumables and parts required tooperate the equipment, including all standard tools to be		
	included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable, separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to be stored and tooperate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Standard: 220V±10%,50/60Hz;1-Phase fitted with appropriateplug.		
	Standards & Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Equipment safety standard should follow IEC 60601.		
	User Training		
	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.		
	Warranty		
	Comprehensive warranty for 1 year after acceptance.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance wheneverrequired.		
	Installation and Commissioning		
	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.		
	Documentation		

	User (Operating) manual in English.		
	Service (Technical / Maintenance) manual in English.		
	List of important spare parts and accessories with their partnumber and costing.		

	Certificate of calibration and inspection from factory.		

Cooler for Intel® Core Processors

38	**Cooler for Intel® Core Processors**	**1**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	Cooler for Intel® Core Processors 12th, 13th and 14thGeneration		
	Operational requirements		
	System Configurations		
	Technical Specifications		
	Intel validated compatibility		
	Heatsink base/core material: Copper heat column		
	Heatsink fastener: stainless steel		
	Overall height: up to 69mm (top of fan to bottom of heatsink)		
	Overall size: up to 103mm x 103mm		
	Fan type: PWM controlled variable speed fan		
	LEDs: ARGB LED light ring and white LED Intel logo		
	Connector types: 4-pin and 5V ARGB		
	Max RPM (+/- 5%): up to 3000 RPM		
	Min RPM (+/- 20%): 1000 RPM		
	Accessories, spares and consumables		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable,separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to be stored and tooperate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.		
	Operating voltage: 13.2V max, 12.0V rated, 10.8V min		
	Standards & Safety Requirements		
	User Training		

	Not applicable		
	Warranty		
	Comprehensive warranty for 1 year after acceptance.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance wheneverrequired.		
	Installation and Commissioning		
	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.		
	Documentation		
	User (Operating) manual in English.		
	Service (Technical / Maintenance) manual in English.		

\MEDICAL EQUIPMENT IN THE PEDIATRY EQUIPMENT

Consultation Table

ITEM NO	ITEMS	QUANTITIES	
1	**Consultation Table**	6	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Purchaser's Specifications		
	Table, Examination		
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
	Description of Function		
	Table for use of examining patients.		
	Operational Requirements		
	An examination table with upholstered top in two pieces. Adjustableheadrest on metal ratchet.		
	System Configuration		
	Examination table with headrest, mattress and pillow.		
	Technical Specifications		
	The Bed shall be made of a solid steel sheet and plate construction with anti-corrosive and antirust treated epoxy powder coating with upholstered top.		
	All 4 legs of the bed shall be capped with heavy duty rubberfootings.		
	Overall size of the table shall not be less than 1830 mm L x 600mmW x 825 mm H.		
	Strong Mild steel tubular construction epoxy powder coated treated. The top base of machine pressed double bent Mild steelsheet epoxy powder coated treated finish.		

	The mattress shall be foldable and shall be designed to bend with the positioning of the bed when the backrest of the bed is adjusted.Bidder shall indicate the weight capacity and the total weight of the mattress in kilogram (kg).		
	The mattress shall have mid-firmness, with foam density of approximately 0.55kg/ cubic foot, to avoid that the patient would sink down into foam with antibacterial, antistatic, acid resistance,waterproof and washable vinyl or vinylized nylon cover.		
	Accessories, spares and consumables		
	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 mustspecify the quantity of every item included in their offer (including items not specified above).		
	Operating Environment		
	The product offered shall be designed to be stored and to operatenormally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.		
	Standards and Safety Requirements		
	Must submit ISO 9001 or ISO 13485:2003/AC:2007 **AND**		
	CE approved product certificate.		
	User Training		
	Not applicable.		
	Warranty		
	Comprehensive warranty for 1 year.		
	Maintenance Service During Warranty Period		
	Standard warranty conditions are applicable.		
	Installation and Commissioning		
	Must supply preassembled unit, ready to use.		
	Documentation		
	User's manual shall be supplied in English.		

Medicine Cabinet

3	**Medicine Cabinet**	**2**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	Operational Requirements		
	System Configuration		
	Technical Specifications		
	Main materials: stainless steel and frosted tempered glass		

	Overall dimensions: 30L x 12W x 60H cm		
	Door dimensions: 562 x 265 x 5 mm (L x W x E)		
	Height between shelves: 13 cm		
	Max. recommended load: 5 Kg		
	Serum vial holder basket: open model for feed tube passage.		
	Vial basket material: polyethylene-coated steel wire.		
	Latex-free infusion basket		
	Infusion basket available in 4 sizes		
	Capacity: from 100 to 1000 ml		
	Load capacity: maximum of 2 kg per vial basket		
	Color: white		
	Serum basket packaged individually in sachets		
	Accessories, spares and consumables		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable,separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to store and to operatenormally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature,Humidity, etc.		
	Standards and Safety Requirements		
	User Training		
	Not applicable		
	Warranty		
	The comprehensive warranty period for this item shall be at least1 year after provisional acceptance of the Goods.		
	Maintenance Service during Warranty Period		
	During warranty period supplier must ensure regular preventive maintenance & corrective/breakdown maintenance whenever required.		
	Installation and Commissioning		
	The supplier 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.		

Incubator CO2

8	**Incubator CO2**	**3**	*[Manufacturer/Brand][Model]*
			[Offered specifications]
	Manufacturer:		

	Brand:		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	CO2 incubator		
	Operational Requirements		
	System Configuration		
	Mobile		
	Technical Specifications		
	Capacity approx: Max: 160 l		
	Number of doors: 2 doors		
	Temperature range: Max: 60°C (140°F); Min: 5°C (41°F)		
	Disinfection routine: Heat 180°C		
	Oxygen control: 0.2-20%		
	Stainless steel chamber		
	Humidity alert and monitoring package		
	Data logger		
	CO2 sensor type: infrared		
	Touch screen controller		
	Water-jacketed		
	Accessories, spares and consumables		
	Accessories: Supplied with 10 x 1000ml water bottles including peristaltic tubing, connectors, and fine gas filters		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls etc., whatever is applicable, separatelyand it must be valid for at least 2 years.		
	Operating Environment		
	The product offered shall be designed to store and to operatenormally under the conditions of the purchaser's country. The		
	conditions include Power Supply, Climate, Temperature,Humidity, etc.		
	Power supply: 220 240 VAC, 50Hz fitted with appropriate plug.The power cable must be at least 3 metre in length.		
	Standards and Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Electrical safety conforms to standards for electrical safety IEC60601-1 General requirement for Electrical safety of Medical Equipment.		
	User Training		

	The supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of operational functions of the equipment,as well as routine checks and maintenance expected by users.		
	Warranty		
	The comprehensive warranty period for this item shall be at least1 year after provisional acceptance of the Goods.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure regular planned preventive maintenance (PPM) and corrective/breakdownmaintenance whenever required.		
	Installation and Commissioning		
	Must supply preassembled unit, ready to use.		
	Documentation		
	User (Operating) manual in English. *(To be provided during thetime of installation.)*		
	Service (Technical / Maintenance) manual in English. *(To beprovided during the time of installation.)*		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		

Serum Vial Rack

13	**Serum Vial Rack**	**30**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	Designed to withstand elevated water temperatures forincubation		
	Operational Requirements		
	System Configuration		
	Technical Specifications		
	Main materials: stainless steel and frosted tempered glass		
	Overall dimensions: 30L x 12W x 60H cm		
	Door dimensions approx.: 562 x 265 x 5 mm (L x W x E)		
	Height between shelves approx.: 13 cm		
	Max. recommended load: 5 Kg		
	Serum vial holder basket: open model for feed tube passage.		
	Vial basket material: polyethylene-coated steel wire.		
	Latex-free infusion basket		
	Infusion basket available in 4 sizes		
	Capacity: from 100 to 1000 ml		

	Load capacity: maximum of 2 kg per vial basket		
	Color: white		
	Serum basket packaged individually in sachets		
	Accessories, spares and consumables		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls, printer paper etc., whatever is applicable,separately and it must be valid for at least 2 years.		
	Operating Environment		
	The product 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.		
	Standards and Safety Requirements		
	User Training		
	Not applicable		
	Warranty		
	The comprehensive warranty period for this item shall be at least1 year after provisional acceptance of the Goods.		
	Maintenance Service during Warranty Period		
	During warranty period supplier must ensure regular preventive maintenance & corrective/breakdown maintenance wheneverrequired.		
	Installation and Commissioning		
	The supplier 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.		

Oxygen Concentrator with all accessories

15	**Oxygen Concentrator with all accessories**	**10**	*[Manufacturer/Brand][Model]* *[Offered specifications]*
	Manufacturer:		
	Brand:		
	Type / Model:		
	Country of Origin:		
	Description of Function		
	Oxygen concentrator produces oxygen from ambient air.		
	Operational Requirements		
	Medical oxygen concentrators, used in hospitals or at home toproduce oxygen for patients.		

	System Configuration		
	Oxygen Concentrator set complete with all accessories.		
	Technical Specifications		
	The Oxygen Concentrator should be mobile, lightweight, mainsoperated unit capable of supplying continuous oxygen from		
	atmospheric air with a built-in purity measurement andNebulizer.		
	Double flow splitter for Oxygen delivery		
	Should have LCD/LED screen to view the usage hours andtimer.		
	Adjustable Flow rate ranging 0.5 to 10 L/ min		
	Oxygen Purity shall be 93% ± 3%		
	Delivery pressure 3 to 7 PSI		
	Should have superior grade sieve		
	Should have facility for nebulization with tube and mask		
	Should have filters at different stages		
	Alarm for Low Oxygen Concentration, Power Failure,Compressor Failure, Pressure Cycle Failure etc		
	Filters for dust and bacteria		
	Low noise system < 55 dB		
	Should have timer function to set the timer ranging 0 to 99minutes for auto shut down		
	Delivery system for a maximum of two patients		
	Calibrated Oxygen purity indicator		
	The device should have in-built provision to place theaccessories.		
	Accessories, spares and consumables		
	Accessories: Humidifier Bottle---2 nos. Nasal cannula with extension tubing---2 Nos. Mask for adult and child, reusable: 02 set Oxygen tube: 05 m Spare Oxygen filters: 02 pcs		
	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaningand 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).		
	The bidder shall quote rates for spare parts, consumables, calibrators & controls etc., whatever is applicable, separatelyand it must be valid for at least 2 years.		
	Operating Environment		

	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.		

	Power supply: 220-230VAC, 50Hz fitted with appropriate plug.The power cable must be minimum 3 metres long.		
	Standards and Safety Requirements		
	Shall have ISO13485:2003/AC: 2007 for Medical Devices **AND** CE (EEC Directives) or USFDA approved product certificate.		
	Equipment safety standard should follow IEC 60601.		
	User Training		
	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 expectedby users.		
	Warranty		
	The Comprehensive warranty period for this item shall be atleast 2 years after acceptance of the Goods.		
	Maintenance Service During Warranty Period		
	During the warranty period supplier must ensure regular planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required.		
	Installation Commissioning and Calibration		
	The supplier must arrange for the equipment to be installed and calibrated by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance,in detail.		
	Documentation		
	User (Operating) manual in English. *(To be provided during thetime of installation.)*		
	Service (Technical / Maintenance) manual in English. *(To beprovided during the time of installation.)*		
	List of important spare parts and accessories with their partnumbers and costing.		
	Certificate of calibration and inspection from factory.		