Technical Specification of OT Department

1. Fumigator

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Fumigator			
	Manufacturer			
	Brand			
	Type/Model			
	Country of Origin			
1	**Description of Function**			
1.1	Fumigator is used to reduce microbial agents on hospital surfaces and to control infections.			
2	**Operational Requirements**			
2.1	Must generate ultrafine and not wetting Aerosols (Submicron Size).			
3	**System Configuration**			
3.1	Fumigator, complete unit.			
4	**Technical Specifications**			
4.1	The machine must disperse a disinfectant into an aerosol of particle size of at least 5microns and keep it suspended in air for 40-60 minutes.			
4.2	The jet throw in the closed room must be at least 4.5-6 meters.			
4.3	Nozzle assembly: Non clogging, vortex type design.			
4.4	The droplet size for the nozzle must be 5-15microns.			
4.5	The capacity of tank must be at least 5litres.			
4.6	Solution tank assembly : • Stainless steel (Autoclaveable), leak proof with graduation markings. • Solution tank cover must be stainless steel (Autoclaveable).			
4.7	Motor housing must be electric shockproof, unbreakable.			
4.8	Must be compatible with all leading disinfectant/ fumigant solutions.			
4.9	Machine must be portable and easy to carry.			
4.10	It must have automatic timer.			
5	**Accessories, Spares and Consumables**			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220-240V/ 50 Hz AC Single phase fitted with appropriate plugs to meet purchaser's country requirements. The power cable must be minimum 3 metres long.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 or ISO 13485:2003/AC: 2007 **AND**			
7.2	CE or USFDA approved product certificate.			

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
8	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

2. Patient Trolley

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Trolley, Emergency Patient				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	Emergency Patient Trolley for Patient transfer to & fro ICU/OT/Emergency				
2	**Operational Requirements**				
2.1	It shall be non-hydraulic, mechanically operated patient trolley.				
3	**System Configuration**				
3.1	Emergency patient trolley complete with mattress and accessories.				
4	**Technical Specifications**				
4.1	Shall have three sectional mattress base made of X Ray translucent high pressure laminate with facility to insert X Ray Cassette from either sides & ends of the trolley.				
4.2	Shall be able to X Ray the patient from positions along the entire length and width of the trolley.				
4.3	Shall have pneumatic gas spring stepless adjustment for back section. Trendelenburg (approx. 14Degree) and reverse trendelenburg (approx.7 Degree) positions.				
4.4	Shall have non hydraulic height adjustment by crank mechanism app. 500-900 mm.				
4.5	Frame of the trolley shall move with mattress base when foot section / back section are adjusted.				
4.6	Frame shall be made up of steel with epoxy powder coated washable paint finish.				
4.8	Shall be equipped with heavy-duty castors diameter 150 mm with brakes.				
4.9	Shall have bumpers at all the four corners of the trolley				
4.10	Shall have facility to fix IV rod at all the four corners and middle of mattress base frame.				
4.11	Shall have place for fixing 'B' type Oxygen cylinder.				
4.12	Dimensions: • Max. Length: app. 2075 mm • Max. Width : app. 750 mm • Height: approx. 500 – 900 mm • Trendelenburg : app. 14 deg. stepless • Anti Trendelenburg : app. 7 deg. stepless • X ray viewing area : entire length				
4.13	Mattress shall be made of durable long life material, shall be antistatic, shall be secured with self-adhesive straps				
5	**Accessories, spares and consumables**				
5.1	**Accessories:** • Anti-static hygienic Mattress (80mm) with pull straps: 01 pc • Collapsible side rails: 01 pair • I.V. rod: 01 pc				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	• Cylinder holder for 'B' type Oxygen cylinder:.01 pc			
5.2	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.			
6	**Operating Environment**			
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE or USFDA approved product certificate.			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must provide preassembled unit			
8.2	Training not applicable			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

3. Electrosurgical Unit

S N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Diathermy Machine (Electrosurgical) 300W with Vessel Sealing			
	Manufacturer			
	Brand			
	Type/Model			
	Country of Origin			
1	**Description of Functions**			
1.1	Electrosurgical units or Cautery are required to provide cutting and coagulation electrically during surgery and for controlling bleeding by causing coagulation (haemostasis) at the surgical site.			
2	**Operational Requirements**			
2.1	A 300W diathermy machine (electrosurgical unit) with vessel sealing system.			
3	**System Configurations**			
3.1	Diathermy Machine (Electrosurgical) approx. 300W with Vessel Sealing and with complete accessories.			
4	**Technical Specifications**			
I	**Electrosurgical Unit:**			
4.1	Nominal HF output: 300 Watts at ~400 Ohm.			
4.2	At least 2 modes of operation: mono-polar cutting and mono-polar / bipolar coagulation.			
4.3	Mono-polar cutting modes shall have different level of effects from pure cutting to blend cutting (cutting with haemostasis).			
4.4	Come with 3 mono-polar coagulation modes - soft, forced and spray.			
4.5	Desiccate mode for low voltage contact coagulation suitable in delicate tissue work			
4.6	Fulgurate mode for efficient non-contact coagulation in most applications.			
4.7	Spray mode for coagulation large tissue areas with minimum depth of necrosis.			
4.8	Come with 3 bipolar modes: precise, standard and macro or equivalent.			
4.9	Precise mode to have fine control of desiccation in delicate tissue.			
4.10	Standard mode for applications at low voltage to prevent sparking.			
4.11	Macro mode for applications on tissue with high resistance.			
4.12	Control panel with digital setting and display of power of modes used.			
4.13	All mono-polar and bipolar modes shall be controllable by hand switch and footswitch.			
4.14	Bipolar mode can be activated by either foot pedal and / or auto coagulate by using forceps.			
4.15	Footswitches shall be splash proof and unaffected by common OR 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.			

S N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
4.16	Unit must have automatic power regulating feature to always keep minimum current to the patient throughout the procedures.			
4.17	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.			
4.18	Come with output Leakage controller.			
4.19	Shall have over current protection.			
4.20	Shall be able to be activated from only one output at a time.			
4.21	Must have an undefeatable audible activation-tone indicator/alarm.			
II	**Electrosurgical Vessel Sealing System:**			
4.22	The unit shall also come with an integrated electrosurgical vessel sealing system.			
4.23	Vessel sealing systems can offer an effective alternative method for sealing blood vessels and tissue bundles replacing established surgical techniques such as suturing, surgical clips and staples.			
4.24	It shall be able to use with accessories (forceps or clamps) suitable for vaginal hysterectomy.			
4.25	Vessel sealing system shall have user control mechanism so that surgeon can decide for a repeat seal before actually cutting it or even not cutting it.			
4.26	The system shall be able to seal vessels or tissue bundles preferably within 2 to 4 seconds.			
4.27	Vessel sealing system shall be able to seal artery, veins up to 7mm, sealed vessels shall withstand up to 3 times the systolic blood pressure.			
4.28	Thermal spread or collateral tissue damage must be minimal.			
4.29	Auto stop after vessel sealed with audible visual alarm.			
4.30	Shall have minimum two different modes for vessel sealing.			
4.31	In case of vessel / tissue is not sealed properly machine shall give re-grasp audio visual alarm.			
4.32	Vessel sealing system shall be compatible with Argon Coagulator.			
4.33	The complete unit must have RF activation port to tell other equipment like ECG or EEG that RF current is being generated.			
5	**Accessories, Spare Parts and Consumables**			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.2	All standard Maintenance tools and cleaning /lubrication materials where applicable shall be included. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.			
5.3	The unit shall come with trolley well designed to fit the generator with drawers for keeping the accessories			

S N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
5.4	One unit/ set of explosion-protected foot pedal for mono-polar and bipolar operation			
5.5	Universal adapter to fit and use with most common electrosurgical instruments/ hand pieces x 1 set. Bidder shall indicate the brand of which the adapter is compatible with			
5.6	Come with reusable standard mono-polar pencil/ handle with 2 button switch - 1 unit. Bidder must specify the type, size of pencil offered			
5.7	Reusable mono-polar cord x 1 set.			
5.8	Come with 2 types of reusable standard mono-polar electrodes, 1 piece/ type of electrode. Bidder must specify the type, size of electrodes offered.			
5.9	Come with 1 piece of reusable standard mono-polar coagulation forceps.			
5.10	Come with 1 piece of reusable standard bipolar forceps with hand switch.			
5.11	Reusable bipolar cord x 1 set.			
5.12	Reusable connecting cable for patient electrode x 1 set			
5.13	Patient return electrode for Adult & Child, 50 pieces each			
5.14	Vessel sealing reusable laparoscopic probe – 1 no.			
5.15	Single Pedal vessel sealing footswitch-1 no.			
5.16	**Forceps/ clamps for vaginal hysterectomy:** 1 complete unit of forceps/ clamp for open and vaginal hysterectomy which consist of, but no limiting to, connecting cable to electrosurgical unit, electrode, switch and other accessories. • The forceps/ clamp shall be reusable and autoclaveable. • Length of forceps/ clamp: approximately: 210 - 230 mm • The forceps/ clamp jaw: smooth or ridged or serrated surface, about 25-30 degree curved • Sealing surface of forceps/ clamp: approximately 3-5mm width x 25mm length			
6	**Operating Environment**			
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
7	**Standards & Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Shall meet IEC 60601-2-2 Medical Electrical Equipment - PART 2-2: Particular Requirements for the Safety of HIGH FREQUENCY SURGICAL EQUIPMENT.			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			

S N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 2 years after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

4. O.T. Table (Electric)

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	O.T. Table			
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Operating tables provide an elevated surface that supports the patient's body during surgical procedures, stabilizing the patient's position and providing optimal exposure of the surgical field.			
2	**Operational Requirements**			
2.1	Shall be electro-hydraulic type surgical table/bed.			
3	**System Configuration**			
3.1	O.T. Table for surgical procedure and with complete accessories.			
4	**Technical Specifications**			
4.1	Approx. dimensions: Length 1800-1900mm, Width 800-850mm, Height 630-810mm			
4.2	Cushions-White/grey with cover foldable arm rests, head piece and adjustable back piece and lower leg piece.			
4.3	The electric and mechanical drive for height adjustment.			
4.4	Seat adjustment, folding of the head end, foot end and supported by a powerful hydraulic cylinder.			
4.5	Foldable head rest, adjustable roller feet for satiability and mobility.			
5	**Accessories, spares and consumables**			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Shall be certified to be meeting safety standard IEC 60601-2-46- PART-2 Particular requirements for the safety of operating tables.			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
9.1	Comprehensive warranty for 2 years after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

5. OT Light (Portable)

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Light, Examination, Mobile (LED)				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	Examination light/lamp use in hospital for general examination & minor surgical procedure in wards and in treatment rooms etc.				
2	**Operational Requirements**				
2.1	Shall operate on mains electric supply.				
3	**System Configuration**				
3.1	Examination lamp with all standard accessories.				
4	**Technical Specifications**				
4.1	Mobile examination light with sturdy construction and easily moveable.				
4.2	Shall have heavy base with 5 swivel castors, 2 with brakes. Caster must be medical chemical resistant.				
4.3	Low centre of gravity for optimal stability and reach.				
4.4	Shall have single lamp with 7 LED 12V 1W light.				
4.5	LED shall have life time more than 20,000 hours of operation.				
4.6	Field-of-view diameter, approximately. 0.15m.				
4.7	Homogeneous illumination across entire field-of-view, approx. 60.000 lux (at 0.5m).				
4.8	Colour temperature, approximately: 4500K.				
4.9	Light head mounted on spring loaded articulating arm, height approx.1.60m.				
4.10	On/off switch incorporated in base or spring loaded articulating arm.				
5	**Accessories, spares and consumables**				
5.1	**Accessories:** • 1 x spare set of fuses.				
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
6	**Operating Environment**				
6.1	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.				
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Power consumption, approximately: 10W.				
7	**Standards and Safety Requirements**				
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**				
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
7.3	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

6. Suction Machine

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Suction Machine (Aspirator)				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	To extract fluid from the body during surgery or emergency treatment.				
2	**Operational Requirements**				
2.1	Shall operate on mains AC supply				
3	**System Configuration**				
3.1	The system consists of: • Suction machine with 2 Jars. • Mains as well as battery operated. • Suction tubing. • Two bottles. • Rechargeable battery.				
4	**Technical Specifications**				
4.1	The machine shall be portable on four wheels and with a handle for transportation.				
4.2	The vacuum pump must be totally oil-free diaphragm type. Must have maintenance free pumps of international design for continuous use.				
4.3	Motor shall be of Class "F" insulation to operate in ambient temperature to withstand up to 50^{o}C, with thermal cut-outs. It must run continuously on invertors /UPS.				
4.4	To facilitate maintenance, the cover of the machine must be easy to open from the top & sides.				
4.5	The suction machine must be capable of producing minimum vacuum of approx. 700 mm Hg and which must be adjustable and monitored by vacuum gauge of suitable range. The suction capacity must be 25 litres per minute and can be regulated.				
4.6	It must have two bottles of 2l. Each made of unbreakable polycarbonate with ABS Lid with float (over flow control device). The jars must be graduated (in cc levels). The suction bottles shall be autoclave able.				
4.7	On/Off Switch and power indicator must be available.				
4.8	Shall provide foot switch.				
4.9	**Body material:** Base, top & panel made of rust proof and corrosion resistant moulded ABS.				
4.10	Lithium ion inbuilt rechargeable battery with capacity sufficient for operating in battery mode (fully charged) for minimum of 1 hour. Shall provide with cable for powering suction machine from ambulance/car cigarette lighter.				
5	**Accessories, spares and consumables**				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
5.1	**Accessories:** • Spare bottle: 01 no. • Lids: 02 nos. • Rubber Seals: 02 nos. • Blades: 02 nos. • Suction tubing set at least 5 metres: 02 nos. • Spare fuse: 01 set.			
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

7. Anaesthesia Workstation with cardiac monitor

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Anaesthesia Workstation with cardiac monitor				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	Anaesthesia Machine is used for delivering anaesthesia agents to the patients during surgery. The complete unit also monitors the vital signs and ventilates the patients.				
2	**Operational Requirements**				
2.1	It shall be suitable to be used for adult and paediatric patients.				
3	**System Configuration**				
3.1	Anaesthesia workstation with circle absorber, two vaporizers, Ventilator and Monitoring and with complete accessories.				
4	**Technical Specifications**				
4.1	It must be pneumatically or electrically powered and electronically controlled				
4.2	Must be compact, ergonomic & easy to use				
4.3	Must have provision for delivery of oxygen, nitrous oxide and medical air with pressure gauges.				
4.4	Machine must provide electronic gas mixing.				
4.5	Multi-colour TFT display of at least 12" size, with virtual flow meters for O2, N2O or Air.				
4.6	Dual flow sensing capability at inhalation and exhalation ports.				
4.7	Must have back-up O_2 control which provides an independent fresh gas source and flow meter control in case of electronic failure.				
4.8	Gas regulators shall be of modular design/ graphic display				
4.9	Two Pin index yokes for connecting cylinders each for O_2, N_2O.				
4.10	Separate Pipeline inlet for Oxygen , Nitrous Oxide and Air				
4.11	Oxygen and Nitrous oxide must be linked either mechanically or pneumatically to ensure a minimum of 25% oxygen delivery at all times to avoid delivery of hypoxic mixture.				
4.12	Must have audio-visual oxygen failure warning system.				
4.13	It shall automatically cut off the supply of N2O and other gases and activate an alarm if O2 pressure drops below 28 – 30PSI. It shall sounds at maximum volume every 10 seconds.				
4.14	**Flow Meter:** • It shall come with 6 flow meter columns; 2 flow meter columns for each kind of gas (N2O, O2, Air); 1 column approximately from 0 to 1 L/min and the other column approximately from 1 to 10 L/min (OR equivalent digital flow meter)				
4.15	**Breathing system:** • Latex free fully autoclave able. • Flow sensing capability at inhalation and exhalation ports,				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	sensor connections shall be internal to help prevent disconnect. • Sensor must not require daily maintenance. • Bag to vent switch shall be bi-stable and automatically begins mechanical ventilation in the ventilator position. • Adjustable pressure limiting valve shall be flow and pressure compensated.			
4.16	Non-return cum pressure relief valve when pressure exceeds 120cmH2O.			
4.17	Battery backup for not less than 90 minutes of operation.			
4.18	Must provide with oxygen flush switch.			
4.19	Must have low flow anaesthesia technique.			
4.20	All circuits shall be detachable, washable and Autoclave able at most with steam of 134 ^{0}C.			
4.21	**Standard Circle Absorber System:** • Must have a bag/ventilator selecting valve integrated onto the absorber. • Must be suitable to use low flow techniques • Facility to attach oxygen sensor. • Must have CO2 absorbent chamber canister • Autoclaveable Bidder shall specify the capacity of soda lime (in kg) will be supplied.			
4.22	**Vaporizers:** • New generation vaporizer must be isolated from the gas flow in the off position and prevent the simultaneous activation of more than one vaporizer. • Precision vaporizers (Temperature, pressure and flow compensated) for Halothane, Isoflurane and Sevoflurane. • Must be easy to mount and dismount from the back bar. • Must have a standard filling port with keyed filling device. • Must be designed for transport with liquid in vaporizer chamber with protection against tipping and shaking • Maintenance free vaporizer • Come with 2 sets of concentration calibrated type vaporizers and two sets of compatible fillers: one for isoflurane and one for halothane.			
4.25	**Ventilator:** • The workstation must have integrated Anesthesia Ventilator system. • Microprocessor based electrically powered and electrically controlled ventilator • Ventilator must have Volume Control and Pressure Controlled and SIMV modes. • Ventilator must have a tidal volume compensation capability to adjust for losses due to compression, compliance and leaks; and compensation for fresh gas flow.			

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	• Ventilator must be capable of at least 120-150 L/min peak flow to facilitate rapid movement through physiologic "dead space" in the Pressure Control mode. • Tidal Volume: approximately 50 - 1200 ml • Breathing frequency: approximately 5 - 60 breath/min • Inspiratory flow: approximately 5 - 70 L/min • Pressure limitation : approximately < 70 cm H2O • PEEP (positive end-expiratory pressure): approximately 0 - 20 cm H2O			
4.26	**Anaesthesia Monitoring Specifications:** • Monitoring of vital parameters: ECG, NIBP, SPO_2 and Invasive Blood Pressure. • Twin temperature measurement with skin and rectal probes- Two sets with each monitor • Depth of Anesthesia Monitoring module - one per monitor with 50 sensors with each monitor • Neuromuscular Transmission Monitoring with all accessories. One set with each monitor • Cardiac Output measurement facility by thermo dilution technology with all accessories- one set for three monitors. • 24hrs of graphical and numerical trending • Must have Hemodynamic, Oxygenation and Ventilation calculation package • Must include inbuilt Anaesthesia record keeping software facility in all OT monitor to document anaesthesia event using standardized menu based entries. • Facility to store snapshots during critical events for waveform review at a later stage • Audio visual and graded alarming system			
4.27	**Display of Ventilator:** • Tidal volume (VT) • Inspiratory/expiratory ratio (I:E) • Inspiratory pressure • Pressure limit • Positive End Expiratory Pressure (PEEP)			
5	**Accessories, spares and consumables**			
5.1	**Accessories:** • Vaporizer Halothane -01 • Vaporizer Isoflurane -01 • Adult and Pediatric autoclave able medical grade silicon breathing circuits -02 each • Connecting hose with regulator/ flow meter or probe for connection to PIN index oxygen cylinder and BOC type oxygen wall outlet, at least 5 meter length, 1 set • Connecting hose with regulator/ flow meter or probe for connection to N2O cylinder or N2O wall outlet, at least 5 meter length, 1 set			

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	• Connecting hose with regulator/ flow meter or probe for connection to air cylinder or wall outlet, at least 5 meter length, 1 set • Medical grade silicon test lung adult and child size, 1 set each • Medical grade silicon rubber anesthesia face masks for adult and pediatric, 2 set each. • O_2 sensor, 1 set • Disposable domes-10 • Temp probe Skin reusable- 02 • Accessories for Cardiac Output module- 01 set • Disposable Adult & Pediatric circuits- 5 each. • Vital Parameter Accessories-01 Set			
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
6.3	UPS of suitable rating shall be supplied for minimum 30 min. backup for the entire system			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Shall meet IEC-60601-1-2:2001General Requirements of Safety for Electromagnetic Compatibility.			
7.4	Shall be compliant with IEC 60601-2-13-Medical Electrical Equipment part 2-13: Particular requirements for the safety of Anaesthesia Workstations.			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 2 years after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization			

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	(Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

8. Defibrillator

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Defibrillator			
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Defibrillator is required for reviving the heart functions by providing selected quantum of electrical shocks with facility for monitoring vital parameters.			
2	**Operational Requirements**			
2.1	Used in emergency & critical care departments to meets various resuscitation and monitoring needs.			
3	**System Configuration**			
3.1	Defibrillator must be Biphasic, light weight and latest model with complete accessories.			
4	**Technical Specifications**			
4.1	Shall have both AED (automated external defibrillator) and Manual capabilities.			
4.2	System shall be user friendly, lightweight and easily transportable.			
4.3	The defibrillation shock is delivered using biphasic waveform which delivers a lower range of energy shocks ranging from 2 to 260 joules. For internal defibrillation, the energy is limited to 50 joules. Bidder to indicate the range of energy proposed			
4.4	Shock delivery can be via hands-free multifunction defibrillator electrode pads or paddles.			
4.5	Able to perform synchronized cardioversion and non-invasive pacing therapy.			
4.6	The AED must be able to start analysis automatically or prompt the operator to press "start analysis". In automatic analysis mode, the analysis of the ECG data shall not be more than 14 seconds.			
4.7	When not in the analyze mode, the AED must provide both ***audible*** and ***visual indication*** of the presence of, or a change to a potentially shockable rhythm.			
4.8	Can be used for neonatal/paediatric and adult defibrillation.			
4.9	The defibrillator using defibrillation pads shall be used on adults. For paediatric/neonates, it shall use the paediatric/neonate Energy reduced energy defibrillation electrodes.			
4.10	Shall have an electrode contact-quality indicator to minimize the risk of ineffective defibrillation.			
4.11	Shall have 3-lead ECG monitoring capability.			
4.12	Shall include a removable data card for storing ECG data (patient heart rhythm and defibrillation events) with capacity of at least 8MB or not less than 4 hrs of recording.			
4.13	Shall have capability to download ECG data to a PC-based data			

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	management program.			
4.14	Operates on AC power supply or internal battery.			
4.15	Shall have battery back-up facility			
4.16	Shall have rechargeable battery back-up facility. Fully charged battery shall deliver approximately 50 discharges. Bidder to specify the type of battery used.			
4.17	Shall have integral thermal printer with paper speed of 25mm/sec			
4.18	Must comply with AHA & ACLS requirements.			
4.19	**Control Panel** • Control panel shall have a high-resolution LCD with bright back-light display. • Bidder to specify size of LCD screen and the no. of waveforms which can be displayed. • Audio and visual alarms shall be provided. • Audible indication shall be available during AED mode. • Must be able to display ECG, HR indicator, battery status, shock indicator. • HR limit and shockable rhythms alarms shall be provided.			
4.20	Energy dischargeable buttons shall be provided on the unit.			
4.21	Charge shall not be held longer than 10 secs before discharge.			
4.22	Must have an electrode contact-quality indicator to minimize the risk of ineffective defibrillation.			
5	**Accessories, spares and consumables**			
5.1	Disposable self-adhesive defibrillator pads for adults complete with cable and connector x 10 sets			
5.2	Disposable self-adhesive reduced energy defibrillator pads (as required) for neonate/paediatric complete with cable and connector x 3 sets			
5.3	3 wire ECG cable (lead II) x 1 set for ECG monitoring.			
5.4	Disposable ECG electrodes x 50 pcs			
5.5	Carry Bag/case x 1 set			
5.6	Printer (built-in) x 1 set			
5.7	Thermal paper x 10 rolls/sets			
5.8	Power cord x 1 set			
5.9	Rechargeable Battery x 1 set			
5.10	External Paddles for Adult & Children x 1 set			
5.10	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Must work on 220-240V/ 50 Hz AC Single phase fitted with			

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	appropriate plugs and sockets. The mains cable minimum 3 meter long.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Comply to AHA & ACLS requirements or equivalent			
7.4	Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements and IEC-60601-2-25 Safety of Electrocardiograms.			
8.	**Warranty & Maintenance Service During Warranty Period**			
8.1	Comprehensive warranty for 2 year after acceptance.			
8.2	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
9	**Authorization**			
9.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
10	**Installation and Commissioning & User Training**			
10.1	Supplier must accomplish proper commissioning of equipment onsite.			
10.2	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.			
11	**Documentation**			
11.1	User (Operating) manual in English.			
11.2	Service (Technical / Maintenance) manual in English.			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish the Qualification Criteria of the bidder mentioned in the main bid document			

9. Infusion Pump

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Infusion Pump			
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	The infusion pump provides uniform flow of fluid by precisely driving the plunger of a liquid (NS, Glucose, etc.). It provides accurate and continuous flow rate for precise deliver of I.V. medication in critical medical care			
2	**Operational Requirements**			
2.1	The infusion pump must be user friendly, safe to use and must have battery backup and comprehensive alarm system			
3	**System Configuration**			
3.1	Infusion pump with battery backup alarm and with complete accessories			
4	**Technical Specifications**			
4.1	Shall be operated on drip rate peristaltic finger pump method			
4.2	Shall be compatible with most of the IV set (macro/ micro drip sets)			
4.3	Shall have a LED/LCD display with backlight and graphical display of infusion			
4.4	Shall have the ranges of as per following flow rates IV Set ml/hr Drops/min i. 15 drops/ml 3~450 ml/hr 1~100 drops/min ii. 20 drops/ml 3~450 ml/hr 1~100 drops/min iii. 60 drops/ml 1~100 ml/hr 1~100 drops/min			
4.5	Shall have a flow rate accuracy of ±10% and drip rate accuracy of ± 3%			
4.6	Shall have a volume infused display from 0 to 999.9 ml			
4.7	Shall have a purge and KVO facility			
4.8	It shall have facility of audible and visual alarm for occlusion pressure, air alarm, door open ,empty, low battery.			
4.9	Shall have rechargeable battery having at least 2 hours backup at highest delivery rate			
5	**Accessories, spares and consumables**			
5.1	Accessories: • Mounting device/ Docking station for two or four pumps as per requirement so as to enable to power up to 2-4 pumps with one power cord when mounted on IV pole. – 1 pc			
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders			

	must specifiy the quantity of every item included in their offer (including items not specified above)			
6	**Operating Environment**			
6.1	The system offered must be designed to store and be operated normally under the condition of the purchaser's country. The conditions include climate, temperature and relative humidity.			
6.2	Power supply: 220-240 V ACm 50 Hz, fitted with appropriate plug type D round 3 pins. The power cable must be minimum 2.5 meters long			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 13485:2003/ AC:2007 for Medical Devices AND			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer’s Authorization or Local Distributor Authorization (Manufacturer’s Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English.			
11.2	Service (Technical / Maintenance) manual in English.			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

10.Syringe Pump

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Syringe Pump			
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	The Syringe Pump provides uniform flow of fluid by precisely driving the plunger of a syringe down its barrel. It provides accurate and continuous flow rate for precise delivery of I.V medication in critical medical care			
2	**Operational Requirements**			
2.1	The syringe pump must be programmable, user friendly, safe to use and must have battery backup and comprehensive alarm system.			
3	**System Configuration**			
3.1	Syringe pump with battery backup alarm and with complete accessories			
4	**Technical Specifications**			
4.1	Flow rate programmable from 0.1 to 300 ml/hr for 20ml injector and from 0.1 to 500 ml/hr for 50ml injector with user selectable flow set rate option. SAVE last infusion rate even when the AC power is switched OFF.			
4.2	Bolus rate must be programmable for at least 400 ml/hr (for 20 ml injector) and at least 550ml/hr (for 50 ml injector). SAVE last bolus rate even when the AC power is switched OFF			
4.3	Keep Vein Open (KVO) must be available and must be less than 1.0 ml/hr. User must have choice to disable KVO whenever desired.			
4.4	Must work on commonly available 20 & 50 ml Syringes with accuracy of minimum ±5% or better.			
4.5	Automatic detection of syringe size & proper fixing. Must provide alarm for wrong loading of syringe such as flanges out of slot, disengaged plunger, unsecured barrel, etc.			
4.6	Anti bolus system to reduce pressure on sudden release of occlusion.			
4.7	Must have comprehensive alarm for all the errors that tend to come during the running of the equipment.			
4.8	Rechargeable battery having at least 3-4 hours backup for about 5ml/hr flow rate with 50ml syringes.			
5	**Accessories, spares and consumables**			
5.1	Accessories: • Mounting device/ Docking station for two or four pumps as per requirement so as to enable to power up to 2-4 pumps with one power cord when mounted on IV pole. – 1 pc			
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above)			
6	**Operating Environment**			

6.1	The system offered must be designed to store and be operated normally under the condition of the purchaser's country. The conditions include climate, temperature and relative humidity.			
6.2	Power supply: 220-240 V AC 50 Hz, fitted with appropriate plug type D round 3 pins. The power cable must be minimum 2 meters long.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 13485:2003/ AC:2007 for Medical Devices AND			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate			
8.	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer’s Authorization or Local Distributor Authorization (Manufacturer’s Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

11.Oxygen Cylinder (Large)

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Oxygen Cylinder (Large)			
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Oxygen cylinder for medical use.			
2	**Operational Requirements**			
2.1	Steel Oxygen cylinder of 46L capacity is required.			
3	**System Configuration**			
3.1	Oxygen Cylinder, 46L			
4	**Technical Specifications**			
4.1	Cylinder filled with medical grade Oxygen.			
4.2	Seamless steel Oxygen cylinder with "Bull nose"-valve			
4.3	Water Capacity: 46L			
4.4	Working pressure: 15MPa(150bar)			
4.5	Testing Pressure: 250bar			
4.6	Cylinder shall be easily refilled anywhere and there is no need for any custom made refilling hose / station / connector.			
4.7	All fitting of cylinder must be leak proof and shall not have any chances of leakages.			
4.8	Shall be supplied complete with cylinder key/spanner/bar or hand-wheel to turn cylinder on/off.			
4.9	**Regulator:**			
	Bull nose screw type, medical oxygen cylinder fitting			
	Regulated to convert standard cylinder pressure (typically 2,000 psi) to approximately 4			
	BAR (4 atmospheres) pressure			
	Regulator delivery pressure must be factory pre-set, and not permit user adjustment			
	Maintenance engineer adjustment of delivery pressure via a screw slot or covered or capped system is required			
	Regulator must incorporate overpressure safety valve with auto venting			
4.10	**Flow Meter:**			
	Back Pressure Controlled Flow Meter			
	Sturdy and reliable Flow Meter Unit for an accurate measuring of flow of gases.			
	Flow adjustment by Needle valve equipped with inlet filter – 100 μm.			
	Flow rate range 0 – 15 litres / minute.			
	Flow meter to be attached to regulator output			
	Bubble Humidifier with Safety Valve and Pressure Relief Valve:			
	Lid made of ABS Plastic			
	Jar made of Unbreakable Poly Carbonate			

	Valve Brass chromium plated			
	Humidifier jar must be steam autoclaveable / gas sterilizeable.			
5	**Accessories, spares and consumables**			
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8.	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer’s Authorization or Local Distributor Authorization (Manufacturer’s Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

12.Shadow Less OT Light (Ceiling)

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Operating Light Ceiling Type (Double Dome)				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	Operation theatre lights provide cool, shadow free light and have special technology and filters to provide the same.				
2	**Operational Requirements**				
2.1	Ceiling mount operating light with two large domes				
3	**System Configuration**				
3.1	Operating light ceiling type having double large domes with all standard accessories.				
4	**Technical Specifications**				
4.1	Lower/upper adjustment of dome, approximately 1.50m.				
4.2	Diameter of dome, approximately 0.60m or better.				
4.3	Rotation: 360 deg.				
4.4	Type of bulbs: LED bulbs				
4.5	Field-of-view diameter, approximately 0.40m, with focus control.				
4.6	Removable autoclave able handle for dome.				
4.7	It shall design with minimal air resistance.				
4.8	**Installation Kit** The followings items shall also be included: • Ceiling mounting plate/ bracket or equivalent and works and materials to make good the ceiling after installation. • Other materials needed for the installation on the items above.				
5	**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 must specify the quantity of every item included in their offer (including items not specified above).				
6	**Operating Environment**				
6.1	The product offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.				
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.				
7	**Standards and Safety Requirements**				
7.1	Must submit ISO13485for Medical Devices **AND**				
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.				

8.	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

13.Arthroscope

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Arthroscope, Basic				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	Arthroscopy is the examination of a joint with a device called an arthroscope inserted through a small incision in the skin. An arthroscope is a small, illuminated camera at the end of a narrow tube. It is connected to a monitor to allow for examination, diagnosis and repair of joint problems.				
2	**Operational Requirements**				
2.1	It shall operate on AC power supply.				
3	**System Configuration**				
3.1	Basic Arthroscopy, complete unit with all standard accessories.				
4	**Technical Specifications**				
4.1	Wide angle or ward-oblique telescope 30° enlarged view, diameter 4mm, length 18cm, autoclaveable, fibre optic light transmission incorporated.				
4.2	Arthroscope Sheath, diameter 6mm, working length 12cm, with 2 rotatable stopcocks and automatic lock-in coupling mechanism, autoclaveable, for use with Hopkins Telescope 30°, diameter 4mm, length 18cm. Coupling between the telescope and sheath must be possible in absolutely any position.				
4.3	Blunt Obturator: Autoclaveable; for use with arthroscope sheath diameter 6mm, working length 12cm.				
4.4	Hook and Retractor: Graduated, autoclaveable, diameter 3.5mm, working length 8.5cm. length of hook 2mm.				
4.5	Suction Punch: Autoclaveable, shaft diameter 4.8mm, working length 13cm.				
4.6	Through Cut Punch: Autoclaveable, cutting width 2.7mm, shaft diameter 3.5mm, working length 13cm; must have an ergonomic handle and flat construction of jaws.				
4.7	Through Cut Punch: Autoclaveable, angled 15° upwards, cutting width 2.7mm, shaft diameter 3.5mm, working length 13cm; must have an ergonomic handle and flat construction of jaws.				
4.8	Through Cut Punch: Autoclaveable, angled 90° left, cutting width 2.7mm, shaft diameter 3.5mm, working length 13cm; must have an ergonomic handle and flat construction of jaws.				
4.9	Through Cut Punch: Autoclaveable, angled 90° right, cutting width 2.7mm, shaft diameter 3.5mm, working length 13cm; must have an ergonomic handle and flat construction of jaws.				
4.10	Autoclaveable Scissors: straight, shaft diameter 3.5mm, working length 13cm. Scissors with two piece design having a handle and working attachment will be preferable.				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
4.11	Autoclaveable Biopsy Forceps: straight, shaft diameter 3.5mm, working length 13cm. Biopsy Forceps with two piece design having a handle with ratchet and working attachment will be preferable.			
4.12	Autoclaveable Biopsy Forceps: straight, shaft diameter 3.5mm, working length 13cm. Biopsy Forceps with two piece design having a handle with ratchet and working attachment will be preferable			
4.13	Cleaning adaptor for hand instruments.			
4.14	**Camera:** • Digital single chip camera • Colour system: PAL with camera head. • High horizontal image resolution of more than 450 lines. • Integrated optical par focal zoom lens through which the image can be zoomed in or out without changing the focus. • Automatic exposure control (1/50-1/10000s PAL). • Automatic white balance with memory functions for 2 settings. • RGB - video output. • Integrated universal power supply. • Can be adapted directly to an operating microscope. • Integrated title generator. Camera system compatible with Communication Computer system for remote controlled operation of the various features of the camera along with other equipment so as to function as an integral part of the digitally controlled Operating Room under the command of the operating Surgeon. Camera System having an Autoclaveable Camera Head and Programmable buttons on the camera head itself will be highly desirable.			
4.15	**Light Source:** Halogen (15V, 250W) light source having optimum light power with colour temperature around 3400K. Compact and light in design with manual light intensity control preferably in steps. The light source must have an in-built infra-red filter for heat and a system for over-heating protection. The light source must also have automatic backup operation in case of lamp failure.			
4.16	Fibre Optic Light Cable for Cold Light Fountains with Straight Connector: Diameter 3.5mm, length 180cm.			
4.17	**Hardcopy Devices:** • Printer to take print out of the images from monitor screen. • CD/DVD writer to record the procedure video for records and documentation.			
5	**Accessories, spares and consumables**			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must			

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240V AC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.			
6.3	Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back-up shall be supplied with the system.			
7	**Standards and Safety Requirements**			
7.3	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.4	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
8.	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

14. Tourniquet (Manual)

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Tourniquet System, Manual				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	An manual tourniquet system comprises variable pressure cuff apparatus, means for applying a variable pressure to a limb or artery of a patient in order to occlude blood flow there at and control apparatus for determining the operative pressure of the variable pressure cuff apparatus, means for minimum effective cuff pressure required for complete occlusion.				
2	**Operational Requirements**				
2.1	To be operated manually.				
3	**System Configuration**				
3.1	Tourniquet System, complete unit with all standard accessories.				
4	**Technical Specifications**				
4.1	System with hose.				
4.2	Must have option for bier's block and bilateral procedures.				
4.3	Seven sizes of cuffs that must meet individual requirement of thin and fat patient, for arm & thigh.				
4.4	Shall be small and light in weight.				
4.8	Sizes of cuffs to be supplied with the system: • 20cm (8") Cylindrical Cuff: 2 each • 30cm (12") Cylindrical Cuff: 2 each • 46cm (18") Cylindrical Cuff: 2 each • 61cm (24") Cylindrical Cuff : 2 each • 76cm (30") Cylindrical Cuff: 2 each • 86cm (34") Cylindrical Cuff : 2 each • 107cm (42") Cylindrical Cuff : 2 each				
5	**Accessories, spares and consumables**				
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
6	**Operating Environment**				
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.				
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.				
6.3	Rechargeable battery operated system. Charger to be provided if integrated charger is not there				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
7	**Standards and Safety Requirements**			
7.5	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.6	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must supply preassembled unit, ready to use			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

15. C-Arm Machine

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	C-Arm with image intensifier and Fluoroscopy system			
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Mobile C-Arm X-ray for continuous fluoroscopy, image storage and retrieval			
2	**Operational Requirements**			
2.1	It shall operate on single phase AC power supply			
3	**System Configuration**			
3.1	Mobile C-Arm X-ray, two monitors and a memory unit			
4	**Technical Specifications**			
4.1	**X-ray Generator:**			
	Microprocessor based, high frequency inverter generator of at least 30 KHz			
	Anatomical Programmable Radiography Mode to optimize the system setting for better life of X-ray tube			
	Generator output : not less than 3 KW at 100KV			
	Fluoroscopic / Radiographic KV range			
	Lower limit shall not exceed 40 KV			
	Higher limit shall not be less than 110KV			
	Upper limit of Fluoroscopic mA must be at least 2mA			
	Radiographic Range should be approx.(10 to 150) mAs or more			
4.2	**X-ray Tube:**			
	High Frequency Stationary anode tube type			
	Focal spots range : Small focus hall not be less than $0.5mm^2$ and large focus shall not be more than $1.8mm^2$			
4.3	**Collimator**			
	Operator controlled fixed collimator with a pair of semi-transparent shutters can be rotated 360°.			
4.4	**C-Arm**			
	Orbital movement shall be approx. 125°			
	Vertical travel at least 400 mm			
	Horizontal travel at least 200 mm			
	Swivel range shall be approx. 12°			
	Axial Rotation shall be approx ±180°			
4.5	**Image Intensifier**			
	At least 9", Triple field image input screen with direct coupling with camera			
	Camera shall have at least 100 LPI			

	Noise reduction, scattered light trap for high contrast dynamics			
	Shall have CCD camera technology			
4.6	**TV Monitor**			
	2 units LCD monitor side by side for live and reference image			
	Shall be at least 17" size with automatic brightness control			
	Trolley for 2 display screens with either a keyboard or mouse included			
4.7	**Imaging Modes**			
	Fluorscopy mode shall have the following facilities • Continuous fluoroscopy with last image hold • Pulsed fluoroscopy with last image hold • Last image hold with at least two frames image memory			
	Digital image processing capabilities : Filtration, summation and noise reduction			
	Digital image rotation with subsequent processing			
	Positive/Negative and left/right and top/bottom image reversal			
	Image storage capacity of at least 100 images			
	Shall have facility of CD/DVD or USB or integrated DICOM storage options for external memory			
	Come with one unit of B/W video printer printing on 110mm width thermal paper resolutions more than 300 dpi, 256 grey level. The video printer should have space to be kept in the monitor trolley.			
5	**Accessories, spares and consumables**			
5.1	Accessories: • Lead aprons, light weight – 4 nos • Thyroid guards – 2 nos • LED / Fluorescent View box – 2 nos • Thermal paper 110 mm width for B/W video printer – 5 rolls			
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above)			
6	**Operating Environment**			
6.1	The system offered must be designed to store and be operated normally under the condition of the purchaser's country. The conditions include climate, temperature and relative humidity.			
6.2	Power supply: 220 -240V AC, 50 Hz single phase fitted with appropriate plug 3 pin round type. The power cable must be minimum 3 meters long.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 13485:2003/ AC:2007 for Medical Devices			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate			
7.3	Shall meet IEC 60601-1-3 Part 1: General Requirements for safety Collateral Standard: General requirements for Radiation Protection in Diagnostic X-Ray Equipment OR any Radiation safety standard			

	certificates from corresponding country's regulatory board.			
8.	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 2 years after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

16.Bone Drill & Saw

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Drill & Saw, Electrical				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	Drilling machines are used in a number of orthopaedics surgical procedures, for example, in making holes in bones for bone screws and in drilling out the medulla or marrow areas of bones.				
2	**Operational Requirements**				
2.1	Electric driven, autoclave able, versatile, forward & reverse mode with oscillating saw hand pieces.				
3	**System Configuration**				
3.1	Electric Operated Drill & Saw, complete unit.				
4	**Technical Specifications**				
4.1	Driving unit shall include motor, sturdy stand with wheels.				
4.2	Flexible shaft: Minimum length, 2 metres, autoclave able quick connection.				
4.3	**Hand Piece for Drill:** • Cannulated autoclave able pistol type. • Speed-1200 to 1500RPM. • Jacob chuck. • Quick coupling chuck (Synthesis type). • Hudson's chuck. • Chuck for K-wire. • Forward & reverse options.				
4.4	**Hand Piece for Reamers:** • Cannulated autoclave able pistol type. • Speed-400RPM, non-damaging to the bone endosteal blood supply. • Chuck for cannulated reamers. • Forward & reverse options.				
4.5	**Sagittal Saw:** • Autoclave able pistol type. • Easy Attachments of blades (without Instrument). • 2 Blades each of different size routinely used in Orthopaedic surgery (Total nos. 10). • ACL Blades for commonly used sizes.				
5	**Accessories, spares and consumables**				
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240V AC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.			
7	**Standards and Safety Requirements**			
7.7	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.8	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
8.	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

17.OT Table with ortho attachment

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Electrohydraulic OT Table for major orthopedic surgical procedures			
2	**Operational Requirements**			
2.1	Electrohydraulic OT Table with 3 Operations (Electronic, Manual & Override Panel			
3	**System Configuration**			
3.1	Table feature Powered lateral tilt, trendelenburg and reverse, chair positon and adjustable height and constructed stainless steel			
4	**Technical Specifications**			
4.1	The Table is constructed of medical grade stainless steel and other high quality materials. Equipped with a large translucent sliding table top Providing laparoscopy & C-arm functions without patient reversing. Table is powered by either internal battery or facility electric power system			
4.2	Table should made of high quality medical stainless steel. Non- reflecting surface, antibacterial & is easy to clean.			
4.3	Should Interchangeable head/ leg sections allow unobstructed.			
4.4	Should have additional control panel on the table column cover for continue operation in case of remote failure.			
4.5	Should Zero Position to make table neutral by simply pressing '0' positioning button.			
4.6	Should have LED backlight with symbolic position figures to use even in darkness.			
4.7	Should Safety key to block motor system in critical operations and Individual Locking for all table functions			
5	**Technical Data**			
5.1	Top dimension L 1980 x W 533 mm			
5.2	Height adjustment 750 mm – 1050 mm			
5.3	Table Top Sliding (Optional) 300 mm			
5.4	Trendelenburg / Reverse 30° / 25°			
5.5	Lateral tilt 20° / 20°			
5.6	Kidney elevator 150 mm			
5.7	Back Rest (up / down) 80° / 25°			
5.8	Leg Rest (up / down) 15° / 90°			
5.9	Head Rest (up / down) 20° / 60°			
5.10	Safety key to block motor system in critical operations.			
5.12	Individual Locking for all table functions.			

5.13	Should be available Various movement like up/down, lateral/tilts, flex/ reflex, and chair position should be control by remote			
5.14	Remote has LED backlit with symbolic position figures to use even in darkness.			
6	**Standard accessories**			
6.1	Arm Board. Shoulder support, Lateral support, hand rest, knee crutches and anesthesia screens with all required accessories for orthopedics procedures			
6.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.			
7	**Operating Environment**			
7.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
7.2	Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug.			
8	**Standards and Safety Requirements**			
8.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 AND			
8.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
9	**Installation and Commissioning & User Training**			
9.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
9.2	Must provide user training (including how to use and maintain the equipment)			
10	**Warranty & Maintenance Service During Warranty Period**			
10.1	Comprehensive warranty for 2 years after installation			
10.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
11	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
12	**Documentation**			
12.1	User (Operating) manual in English			
12.2	Service (Technical / Maintenance) manual in English			
12.3	List of important spare parts and accessories with their part numbers and costing.			
12.4	Certificate of calibration and inspection from factory.			
12.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

18.Gyno Table (Electric)

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Gyno Table(Electric)				
	Manufacturer				
	Brand				
	Type/Model				
	Country of Origin				
1	**Description of Function**				
1.1	Gyno Table is used for Gynaecological procedure in the surgery room and must incorporate ideal blend of the patient's comfort and the professional needs of the delivery team, focusing on the aesthetic and functional design of the entire product.				
2	**Operational Requirements**				
2.1	Fully motorized Gynaecological Tablewith all attachments and positions.				
3	**System Configuration**				
3.1	Gyno Table with all attachments and accessories.				
4	**Technical Specifications**				
4.1	The table shall be mobile on castors with efficient braking system or castor lifting system in order to provide sufficient stability during operation.				
4.2	Overall approximate dimension: 2155 mm L x 515 mm x 880 mm H (without Mattress).				
4.3	Three sections top made of laminated board.				
4.4	User friendly handset for electrically adjustments of backrest, height and trendelenburg / Reverse trendelenburg.				
4.5	Leg section can be telescoped under backrest for lithotomy positions.				
4.6	Easily removable polymer moulded head and foot boards.				
4.7	Swing away type polymer moulded safety side rail on each side can be easily lowered to aid in both routine and emergency nursing tasks.				
4.8	Stainless Steel bearing down supports with hand grip.				
4.9	Foot support for high /low chair position.				
4.10	Middle and leg section tops removable for cleaning.				
4.11	Corner buffers.				
4.12	All mild steel parts are pre-treated and powder coated finish.				
4.13	Battery back-up with built in charger with AC adapter for minimum three hours.				
4.14	Bed shall have a load capacity of at least 150kg				
4.15	Mattress: antistatic, 3 section, washable and easy to clean with a thickness of at least 8cm.				
5	**Accessories, spares and consumables**				
5.1	**Accessories:** • A pair of upholstered aluminium lithotomy crutches mounted on stainless steel rods. • Stainless Steel telescopic I.V. Pole.-01 • Stainless Steel Tray-01 • Dust protective base cover-01				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 VAC, 50Hz Single Phase fitted with appropriate plug. The power cable must be at least 3 metre in length.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Shall meet IEC 60601-2-46 Medical Electrical Equipment - PART 2-46: Particular Requirements for the Safety of Operating Tables.			
8	**Standards and Safety Requirements**			
8.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 AND			
8.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
9	**Installation and Commissioning & User Training**			
9.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
9.2	Must provide user training (including how to use and maintain the equipment)			
10	**Warranty & Maintenance Service During Warranty Period**			
10.1	Comprehensive warranty for 2 years after installation			
10.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
11	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
12	**Documentation**			
12.1	User (Operating) manual in English			
12.2	Service (Technical / Maintenance) manual in English			
12.3	List of important spare parts and accessories with their part numbers and costing.			
12.4	Certificate of calibration and inspection from factory.			
12.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

19.Delivery Bed

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Bed, Delivery				
	Manufacturer				
	Brand				
	Type/Model				
	Country of Origin				
1	**Description of Function**				
1.1	Delivery bed is used for Baby Delivery and must incorporate ideal blend of the patient's comfort and the professional needs of the delivery team, focusing on the aesthetic and functional design of the entire product.				
2	**Operational Requirements**				
2.1	Manually operated delivery bed.				
3	**System Configuration**				
3.1	Delivery Bed with complete attachments and accessories.				
4	**Technical Specifications**				
4.1	It must have manual adjustments for height and back positions.				
4.2	It must have collapsible side rails.				
4.3	It must have three sectional mattress and seat section must have large perennial cut.				
4.4	It must have headboard which can be detached.				
4.5	Must have wheels provided with locking system.				
4.6	Must have retractable foot section so as to convert bed into table.				
4.7	Must have infusion rods, which have adjustable heights, quick release and attaches to all corners of bed.				
4.8	Must have adjustable leg rests.				
4.9	Must have push grip handles.				
4.10	Must have sliding stainless steel bowl at perennial part of table.				
4.11	It must have catheter bag holder, which can be attached, on either side of bed.				
4.12	It must be able to give trendelenburg, reverse trendelenburg and 70 degree sitting position.				
4.13	It must have adjustable foot supports.				
4.14	It must be easy to maintain clean and sterilize (especially blood stains).				
4.15	Frame must be of epoxy powder coated (washable) steel.				
	Dimensions (approx.): • Length: 180cm • Width: 75cm • Load capacity: 150kg or more				
5	**Accessories, spares and consumables**				
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
6	**Operating Environment**				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 VAC, 50Hz Single Phase fitted with appropriate plug. The power cable must be at least 3 metre in length.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Shall meet IEC 60601-2-46 Medical Electrical Equipment - PART 2-46: Particular Requirements for the Safety of Operating Tables.			
8	**Standards and Safety Requirements**			
8.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 AND			
8.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
9	**Installation and Commissioning & User Training**			
9.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
9.2	Must provide user training (including how to use and maintain the equipment)			
10	**Warranty & Maintenance Service During Warranty Period**			
10.1	Comprehensive warranty for 2 years after installation			
10.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
11	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
12	**Documentation**			
12.1	User (Operating) manual in English			
12.2	Service (Technical / Maintenance) manual in English			
12.3	List of important spare parts and accessories with their part numbers and costing.			
12.4	Certificate of calibration and inspection from factory.			
12.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

20.Cardiotocogrpah (Foetal Monitor)

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Monitor, Cardiotocogrpah (CTG)				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	CTG monitor is used in health facilities for routine assessment of foetal heart rate (FHR) and uterine contractions (UC), during labour and throughout delivery.				
2	**Operational Requirements**				
2.1	External foetal monitoring system, shall work on mains electric supply.				
3	**System Configuration**				
3.1	Cardiotocogrpah (CTG) Monitor with complete accessories.				
4	**Technical Specifications**				
4.1	It shall have ultrasonic transducer to measures foetal heart rate (FHR).				
4.2	Facility of calculation of FHR base line, variability, accelerations and decelerations.				
4.3	Facility of audio-visual alert on loss of signal.				
4.4	Shall have pressure-sensitive transducer records uterine contractions (UC).				
4.5	Monitor fit with remote switch for event marking.				
4.6	Monitor can be used for twins.				
4.7	System automatically recognizes specific transducer.				
4.8	Self-test is performed each time the device is switched on.				
4.9	Large alphanumeric display provides with: FHR 1, FHR 2 and UC.				
4.10	FHR range, approximately 50 to 240bpm, minimal graduation 1bpm.				
4.11	UC range, relative: 0 to 100 units, minimal graduation 1 unit.				
4.12	System reports, with audio-visual alert: operational status, malfunctions (transducers), out-of-paper.				
4.13	**Printer:** • Built-in high-resolution thermal printer, paper width approximately 150mm. • Automatic and manual print-out mode. • Prints FHR 1, FHR 2 and UC, displayed parameters and marked events. • Printer resolution, approximately 1bpm (FHR) and 1 unit (UC). • Paper speed, adjustable: 1, 2 or 3cm/min. • Print-out on z-folded thermo-reactive paper. • Paper graduation: FHR 25bpm/cm and UC 25 units/cm.				
4.14	Shall have data communication interface: RS232, BNC, USB or equivalent.				
4.15	Monitor shall be compact and ergonomic design, smooth finishing allows for easy cleaning.				
5	**Accessories, spares and consumables**				
	Shall come with:				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	• 1 x Contraction transducer. • 2 x Foetal heart ultrasonic sensor. • 1 x Remote switch event marker with cable. • 2 x Transducer belt 5 x 150cm, length adjustable. • 1 x Box of thermal recording paper, total 100 z-folded sheets. • 2 x Bottle of ultrasound gel, approximately 250ml. • 1 x set of fuse. • 1 x Plastic protective dustcover.			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Power consumption, approximately 50W.			
7	**Standards and Safety Requirements**			
7.9	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.10	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
8	**Standards and Safety Requirements**			
8.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 AND			
8.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
9	**Installation and Commissioning & User Training**			
9.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
9.2	Must provide user training (including how to use and maintain the equipment)			
10	**Warranty & Maintenance Service During Warranty Period**			
10.1	Comprehensive warranty for 2 years after installation			
10.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
11	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
12	**Documentation**			
12.1	User (Operating) manual in English			
12.2	Service (Technical / Maintenance) manual in English			
12.3	List of important spare parts and accessories with their part numbers and costing.			
12.4	Certificate of calibration and inspection from factory.			
12.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

21.Foetal Doppler

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Foetal Doppler				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.2	Doppler foetal heart detector is a hand-held ultrasound transducer used to detect the heartbeat of a foetus for prenatal care.				
2	**Operational Requirements**				
2.2	Light weight, handheld, easy to operate and carry (pocket size).				
3	**System Configuration**				
3.1	Doppler, Foetal Heart Detector, with complete accessories.				
4	**Technical Specifications**				
4.1	Doppler based foetal heart rate detector with amplifier loudspeaker.				
4.2	Transducer frequency, approx.: 2MHz				
4.3	Transducer probe with fixed wire connection to the main unit, length approximately 35cm.				
4.4	Detector diameter approximately 20mm.				
4.5	Self-test is performed each time the device is switched on.				
4.6	Large LCD shows foetal heart rate (FHR) in beats per minute (bpm), pulse indicator, sound volume level.				
4.7	Display reports system status, including low battery and malfunctions, with audio-visual alert.				
4.8	Built-in loudspeaker with volume adjustment.				
4.9	Advanced noise suppression system assures quality diagnostic sound.				
4.10	Operates on two 1.5V AA / LR6 batteries. Autonomy, approximately 1000 one-minute examinations.				
4.11	Power consumption, approximately: 0.3W (in standby mode).				
5	**Accessories, spares and consumables**				
5.1	**Accessories:** • 2 x Tubes of ultrasound gel, approximately 350ml • 2 x Set of 2 batteries 1.5V AA / LR6 (separately packed) • 1 x Soft carry bag easy to clean				
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
6	**Operating Environment**				
6.1	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.				
6.2	Shall operate on two 1.5V AA / LR6 batteries				
7	**Standards and Safety Requirements**				
7.11	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
7.12	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	**Standards and Safety Requirements**			
8.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 AND			
8.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
9	**Installation and Commissioning & User Training**			
9.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
9.2	Must provide user training (including how to use and maintain the equipment)			
10	**Warranty & Maintenance Service During Warranty Period**			
10.1	Comprehensive warranty for 1 year after installation			
10.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
11	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
12	**Documentation**			
12.1	User (Operating) manual in English			
12.2	Service (Technical / Maintenance) manual in English			
12.3	List of important spare parts and accessories with their part numbers and costing.			
12.4	Certificate of calibration and inspection from factory.			
12.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

22. Cervical Dilator Set

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	Cervical Dilator Set				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.3	Cervical dilator set is used for the opening of the cervix, the entrance to the uterus, during childbirth, miscarriage, induced abortion, or gynaecological surgery.				
2	**Operational Requirements**				
2.3	Stainless steel, reusable cervical dilator set.				
3	**System Configuration**				
3.1	Cervical Dilator Set of different sizes.				
4	**Technical Specifications**				
4.1	Hegar, Cervical Dilator set, double enclosed.				
4.2	Material: High grade fully stainless steel, corrosion resistance.				
4.3	**Sizes:** • 1 x 2 mm • 3 x 4 mm • 5 x 6 mm • 7 x 8 mm • 9 x 10 mm • 10 x 11mm • 12 x 13mm • 13 x 14mm • 15 x 16 mm				
4.4	Autoclaveable/Sterilizeable.				
4.5	To be supplied in a wooden velvet livid box.				
5	**Accessories, spares and consumables**				
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
6	**Operating Environment**				
6.1	The system offered must be designed to store and be operated normally under the condition of the purchaser's Country. The conditions include Climate, temperature and relative humidity.				
7	**Standards and Safety Requirements**				
7.13	Must submit ISO 9001 or ISO13485:2003/AC:2007 for Medical Devices				
7.14	CE (93/42 EEC Directives) or USFDA approved product certificate.				
8	**User Training**				
8.1	Must provide user training (including how to use and maintain the equipment).				
9	**Warranty**				
9.1	Warranty for 1 year after acceptance.				

S.N.	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
10	**Maintenance Service during Warranty Period**			
11	**Installation and Commissioning**			
11.1	Must supply preassembled unit, ready to use.			
12	**Documentation**			
12.1	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

23. Surgical Instrument Set (CS Set & TAH Set)

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	CS Set				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.4	CS Set is composed of operating room grade instruments which are made from stainless steel.				
2	**Operational Requirements**				
2.4	CS Set for Surgery				
3	**System Configuration**				
3.1	CS Set, complete set				
4	**Technical Specifications**				
4.1	Masson Needle Holder 10 1/2"		1 pcs		
4.2	TC Heaney Needle Holder Cvd 8 1/4"		1 pcs		
4.3	Foerster Sponge Serr Str 91/2"		1 pcs		
4.4	Mayo Dissecting Scissors Str 9"		1 pcs		
4.5	Mayo Dissecting Scissors Cvd 9"		1 pcs		
4.6	Phaneuf Forceps Angular 8"		2 pcs		
4.7	Jackson Vaginal Retractor		1 pcs		
4.8	DeLee OB Forceps 12"		1 pcs		
5	**Accessories, spares and consumables**				
5.1	Not applicable				
6	**Standards and Safety Requirements**				
6.1	Must submit ISO 9001 or ISO13485:2003/AC:2007 for Medical Devices				
6.2	CE (93/42 EEC Directives) or USFDA approved product certificate.				
7	**User Training**				
7.1	Not applicable				
8	**Warranty**				
8.1	Warranty for 1 year after acceptance.				
9	**Installation and Commissioning**				
9.1	Must supply preassembled unit, ready to use.				
10	**Documentation**				
10.1	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document				

TAH Set

S.N.	Purchaser's Specifications		Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	CS Set				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.5	Hysterectomy set for hysterectomy procedure, complete set				
2	**Technical Specifications**				
2.1	Scalpel Handle 3L-1 pcs Mayo Dissecting Scissors Cvd 6 3/4"-1 pcs Rochester-Ochsner Forceps Cvd 8"-4 pcs Rochester-Ochsner Forceps Str 8"-8pcs Russian Tissue Forceps-1pcs Heaney Needle Holder-2pcs Allis Tissue Forceps 5 x 6 Teeth 9 1/2"-2 pcs DeBakey Tissue Forceps- 1pcs Mixter Right Angle Forceps- 2 pcs Metzenbaum Scissors Cvd- 1pcs Deaver Retractor 1" x 9" -1pcs Deaver Retractor 1" x 12" -1pcs Deaver Retractor 1 1/2" x 12"- 1pcs Schnidt Hemostat Cvd- 1pcs Foerster Sponge Forceps Str 9 1/2"-2 pcs Heaney Clamp- 2-pcs Heaney-Ballantine Clamp Str- 6pcs Heaney-Ballantine Clamp Cvd- 2 pcs				
3	**Accessories, spares and consumables**				
3.1	Not applicable				
4	**Standards and Safety Requirements**				
4.1	Must submit ISO 9001 or ISO13485:2003/AC:2007 for Medical Devices				
4.2	CE (93/42 EEC Directives) or USFDA approved product certificate.				
5	**User Training**				
5.1	Not applicable				
6	**Warranty**				
6.1	Warranty for 1 year after acceptance.				
7	**Installation and Commissioning**				
7.1	Must supply preassembled unit, ready to use.				
8	**Documentation**				
8.1	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document				

24.Suture Set

SN	Purchaser's Specifications		Bidder's Offer (Name & Type)
	Suture Set		
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1.	Should provide at least 3 types of Absorbable suture	1	
		2	
		3	
		4	
2.	Should provide at least 8 types of non-absorbable suture	1	
		2	
		3	
		4	
		5	
		6	
		7	
		8	
		9	
iv.	**Packing:** Individually Packed		
v.	**ISO, CE Certificates**		
vi.	**Warranty 1 year**		