Annex-II

1. Monitor with intra-arterial monitoring

S.N	Technical Specification	Compliance (Yes/No)	Deviation (If any)	Page no. of data sheet/catalogue in support of Technical specification
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	**TECHNICAL REQUIREMENT**			
1.1	Monitor shall have bright, highly visible minimum 12" color TFT display with touch screen facility and press button/ rotatory knob.			
1.2	Shall be able to monitor ECG, heart rate, SpO2, NIBP, IBP, Respiration rate, temperature.			
1.3	Monitor shall have the facility to display minimum 8 Waveforms.			
1.4	Numeric data display: heart rate / pulse rate, respiration rate, NIBP (Systolic, Diastolic, Mean), SpO2, IBP, temperature.			
1.5	System must have minimum 24 hours review data including graphical and tabular trends for all monitored parameters..			
1.6	Audio and visual alarms shall be available.			
1.7	Alarms shall have at least three levels denoting crises, warning, advisory.			
1.8	Alarms for all monitored parameters including exceeding user selectable upper and lower limits, lead/probe/sensor disconnection, system failure or error.			
1.9	Shall operate on AC mains as well as lithium ion rechargeable battery.			
1.1o	Shall have battery back up at least 4 hours.			
1.11	Each monitor to be supplied with following:			
1.11.1	ECG lead cable- 5lead			
1.11.2	SpO2 probe and trandsucer- Adult			
1.11.3	NIBP cuffs - Adult			
1.11.4	Temperature sensor probe			
1.11.5	IBP probe (edward type)			
1.12	Shall have capability to interface with central monitor for future upgrade.			
1.13	Shall have RS232 port to interface with computer.			
1.14	Shall have high accuracy of measurement for all the physiological parameters measured. Accuracy range shall be within +/-5% or better for all the physiological parameters.			
1.15	Shall be clinical applicable to monitor patient of all age group- adult, ped, neonate.			
1.16	**ECG**			
1.16.1	Shall monitor ECG through 5 lead patient cable.			
1.16.2	Shall be able to display lead I, II, III, aVR, aVL, aVF and V.			
1.16.3	Shall have ST segment monitoring facility.			

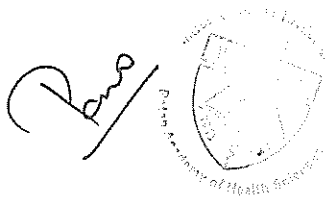
1.16.4	Shall have arrhythmia detection.			
1.16.5	Shall have sensitivity 2.5mm/mV, 5mm/mV, 10mm/mV , 20 mm/mV, 40mm/mV and AUTO selection			
1.16.6	Shall have 6.25mm/s, 12.5mm/s, 25mm/s and 50mm/s sweep speed selection.			
1.17	**SPO2**			
1.17.1	Shall use digital technology for monitor SpO2.			
1.17.2	Shall display both the numeric value and the plethysmograph.			
1.17.3	Shall display the value from 0 - 100%.			
1.18	**NIBP**			
1.18.1	Shall be based on automatic oscillometric methof.			
1.18.2	Shall provide cuff for adult, ped.			
1.18.3	Shall have measurement range of 0 - 270 mm Hg.			
1.19	**Respiration**			
1.19.1	Shall follow the impedance methof of meaurement of respiration.			
1.19.2	Shall display both the numeric value and the respiration waveform.			
1.19.3	Shall have apnea detection facility.			
1.2O	**Temperature**			
1.20.1	Shall be able to monitor dual temperature values simultaneously.			
1.20.2	Shall display the difference between these values.			
2	**ACCESSORIES,SPARE, CONSUMABLES**			
	Shall be of same manufacturer as the main unit.			
2.1	Extra ECG patient cable Adult - 5 set			
2.3	Extra SPO2 Finger transducer resuable silicon type Adult- 5 set			
2.4	Extra NIBP Cuff with suitable connector Adult (3 different sizes) - 5 pc each set			
2.5	Temperature probes 2 types. Core temperature probe Adult- 1 pc each			
	Skin Temperature probe Adult-1 pc each.			
2.7	Extra IBP probe adapter and connector (edward type) - 5 set			
2.8	Wall mount 1 each per patient monitor.			
2.9	All standard accessories /consumables/ parts required for the proper operation of the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer above. Bidders shall specify in separate Excel worksheet, the quantity and details of every item included in the offer. (including items not specified above.)			
3	**OPERATING ENVIRONMENT**			
3.1	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.			
3.2	Power Supply: 220 - 240 VAC, 50 Hz Single phased fitted with appropriate 3 pin plug (flat). The power cable must be at least 3m long.			
4	**STANDARDS AND SAFETY REQUIREMENTS**			
4.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND			
4.2	CE (93/42 EEC Directives) and USFDA (510k) approved product certificate.			

4.3	Shall meet IEC-60601-1-2:2001 General Requirements of Safety for Electromagnetic Compatibility.			
4.4	Shall meet safety requirement as per IEC 60601-2-27:1994 - Medical Electrical equipment, -Part2: Particular requirements for the safety of electrocardiographic monitoring equipment.			
5	**USER TRAINING**			
5.1	Must provide user training 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.			
5.2	Must provide service training (installation, assembling, disassembling, trouble shooting) to Bio maintenance staff by trained company engineer at authorized regional support center.			
6	**WARRANTY**			
6.1	Comprehensive warranty for 2 years on system including accessories and parts. Followed by 3 years of free servicing.			
6.2	The warranty starts from the day of complete satisfactory installation of equipment and handover.			
7	**MAINTENANCE DURING SERVICE PERIOD**			
7.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
7.2	Four preventive maintenance should be performed annually through out warranty period.			
7.3	95% uptime should be guaranteed. If down time exceeds 5% triple the downtime would be added as penalty to the warranty period.			
8	**GUARANTEE**			
8.1	The bidder must ensure the service and complete spare parts support for 10 years of the system, including accessories.			
9	**MAINTENANCE CONTRACT PROPOSAL**			
9.1	A written document for AMC (Annual Maintenance Contract) and CMC (Comprehensive Maintenance Contract) to be submitted separately.			
10	**INSTALLATION, INSPECTION, COMMISSIONING**			
10.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail			
10.2	Inspections to verify the compliance of the offered equipment as per specifications will be conducted by the technical team appointed by the Hospital. Unable to fulfil so, shall result in rejection of equipment.			
10.3	The job description of Hospital technical team and Company Service Engineer should be clearly spelt out.			
11	**DOCUMENTATION**			
11.1	User (operating) manual in English both printed form and CD.			
11.2	Service (Technician/Maintenance) manual in English both printed form and CD.			
11.3	Certificate of calibration and inspection from factory.			

11.4	Please provide a complete list of Spare parts and Accessories, along with cost and part numbers applicable for three years after the comprehensive warranty period is over to be used with system.			
11.5	Company must mandatory (compulsory) provide Authorization letter from parent (Origin) company to prove that they have been legally authorized for dealership of that particular equipment in Nepal.			
11.6	Bidders should mention model number and provide availability chart or Yes/No chart with original catalogue having specification as provided by the manufacturing company. Photocopy, Scan copy or self made specification will not be accepted.			

2. Suction Pump

S.N.	Technical Specification	Compliance (Yes/ No)	Deviation (if any)	Data sheet/catalog page no. supporting technical specification.
	SUCTION PUMP			
	Manufacturer:			
	Brand:			
	Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	To be used in basic health infrastructures for aspiration of body fluids (mucus, and blood) during medical interventions like resuscitation, surgery.			
2	**Operational Requirements**			
2.1	Electrical suction pump for use during medical interventions such as resuscitation and surgery.			
3	**System Configuration**			
3.1	Electric Suction Pump, complete with accessories.			
4	**Technical Specifications**			
4.1	Shall be high vacuum, high flow type.			
4.2	Shall have graduated polycarbonate, unbreakable, autoclaveable jar, two in number with 2 liter capacity each.			
4.3	Jar shall be have overflow valve and hydrophobic filter.			
4.4	Shall have free air flow rate maximum, approximately; 80 L/minute			
4.5	Shall have Vacuum adjustable up to -700mmHg approx.			
4.6	Shall have vacuum controller button, pressure gauge/indicator and on/off switch.			
4.7	Shall be light anti-shock case easy to carry and easy to clean.			
4.8	Shall be silent in operation.			
4.9	Shall be oil free, maintenance free motor suction pump.			
4.1O	Shall be capable to operate continuosly with no motor heating or interruption.			
4.11	Shall have four 360 degree rotation wheels or castors with brake			
4.12	Shall have footswitch.			
5	**ACCESSORIES**			
5.1	Extra 4 x Silicon tube autoclaveable, 1.5 m long			
5.2	Extra 4 x Spare polycarbonate jar of 2L with cover			
5.3	Extra 50 x Set of spare antibacterial filters, hydrophobic			
5.4	Extra 2 x Set of spare fuses			
5.5	Extra 4 x gasket and 4X overflow valve			
5.6	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 Shall 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 – 240V AC, 50Hz fitted with appropriate three pin flat plug. The power cable Shall be at least 3m in length.			
7	**Standards and Safety Requirements**			
7.1	Shall 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 -2 General requirement for safety of Medical Equipment.			
8	**TRAINING**			
8.1	Must provide user training (including how to use and maintain the equipment) until complete familarity.			
8.2	Must provide service training (installation, assembling, disassembling, trouble shooting) to Bio maintenance staff onsite.			
9	**WARRANTY**			
9.1	Comprehensive warranty for 3 years on the system including motor.			
9.2	The warranty starts from the day of complete satisfactory of installation of equipment.			
10	**MAINTENANCE DURING SERVICE PERIOD**			
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
10.2	Four preventive maintenance should be performed annually through out warranty period.			
10.3	95% uptime should be guaranteed. If down time exceeds 5% triple the downtime would be added as penalty to the warranty period.			
11	**GUARANTEE**			
11.1	The bidder must ensure the service and complete spare parts support for 10 years of the system, including accessories.			
12	**MAINTENANCE CONTRACT PROPOSAL**			
12.1	A written document for AMC (Annual Maintenance Contract) and CMC (Comprehensive Maintenance Contract) to be submitted separately.			
13	**INSTALLATION, INSPECTION, COMMISSIONING**			
13.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail			
13.2	Inspections to verify the compliance of the offered equipment as per specifications will be conducted by the technical team appointed by the Hospital and rejected if supplied equipment doe not fulfill specified technical requirements.			
13.3	The job description of Hospital technical team and Company Service Engineer should be clearly spelt out.			
14	**DOCUMENTATION**			
14.1	User (operating) manual in English in printed form. (Mandatory)			
14.2	Service/ Maintenance manual in English in printed form. (Mandatory)			
14.3	Certificate of calibration and inspection from factory.			

14.4	Please provide a complete list of Spare parts, Accessories and consumables along with cost and part numbers to be used with the system.			
14.5	Company Shall mandatorily (compulsorily) provide Authorization letter from parent (Origin) company proving that they have been legally authorized for dealership (Sales/ Service) of that particular equipment in Nepal.			
14.6	Bidders should mention model number and provide availability chart or Yes/No chart with original catalogue having specification as provided by the manufacturing company. Photocopy, Scan copy or self made specification will not be accepted.			

3. Horizontal Autoclave(Fully Automatic)

S.N	Technical Specification	Feature Available (yes/No)	Deviation from the Specification	Corresponding page no. of Datasheet/ Catalogue in support of Specification
	HORIZONTAL AUTOCLAVE (FULLY AUTOCLAVE)			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	Autoclaves are required for sterilizing objects in high temperature and high pressure steam.			
2	**Operational Requirements**			
2.1	Microprocessor controlled horizontal electrically heated autoclave, 800 liter is required.			
3	**System Configuration**			
3.1	Autoclave, Horizontal complete with accessories.			
4	**Technical Specifications**			
4.1	Shall have fully automatic operation.			
4.2	Industrial grade immersion type water heater to generate steam within a reasonable period of time on 3 phase 440 v 50 Hz AC supply.			
4.3	Operating pressure: 15- 30 PSI			
4.4	Operating temperature: 121-134 °C.			
4.5	Material of Construction:			
4.5.1	Triple walled construction.			
4.5.2	Inner chamber, Jacket, Door: SS 316 (approx.10mm thick). Bidder to provide separate certificate supporting the material used is SS 316.			
4.5.3	Outer Chamber: SS 304 (insulated properly). Bidder to provide separate certificate supporting the material used is SS 304.			
4.5.4	Steam generator: Non corrosive SS /Chromium plated Brass.			
4.5.5	Heater Plate: Brass/Stainless steel.			
4.5.6	Pipe Line: Complete with Stainless Steel.			
4.5.7	Stand: High quality, Stainless Steel.			
4.5.8	Heating device (steam generator) horizontally mounted, preferably separated from the chamber.			
4.6	Must have joint less silicon door gasket.			
4.7	Shall have automatic water feed, connection to a demineralised water supply.			
4.8	Shall have automatic level control before, during and after the sterilization cycle.			
4.9	Shall have Low-water-level cut off device.			
4.1O	Shall have feature that prevents starting a cycle if the door is not locked safely.			
4.11	Shall have feature that prevents opening the door until chamber is depressurized.			
4.12	Shall have large LCD display minimum 5 inch showing:			
	· Temperature			

	· Steam pressure			
	· Sterilisation time			
	· Stage of cycle			
	· Alarm information			
4.13	Shall have protected keyboard with acoustic confirmation signal.			
4.14	An access code to prevent programming changes of cycle parameters by unauthorized persons.			
4.15	Pre-setting of programs for liquids, one for solids, one for waste.			
4.16	Autoclave equipped for pre-vacuum, gravity and flash cycles.			
4.17	Shall have Pt100 sensor for precise control and monitoring.			
4.18	Shall have Safety valves; over-pressure relief valve.			
4.19	Shall have over-temperature and over-pressure protection limiter.			
4.2O	Shall have alarm: audible, with display on dysfunction.			
4.21	Shal be hydraulically tested to 2 times the designed working pressure for jacket and 1.5 times for chamber.			
4.22	Even with a total control failure, all mechanical safety features must be left intact.			
4.23	A manual control that can run a complete cycle manually in case of system failure.			
5	**ACCESSORIES, SPARES, CONSUMABLES**			
5.1	Standard Accessories: a. Spare heating element - 2pcs b. Spare silicon gasket - 2pcs c. Stainless steel wire basket that fits into autoclave - 2pcs d. Sterilization tape indicator - 1pcs e. Fuses - 2pcs			
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. (inlcuding 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, 50 Hz, fiited with appropriate 3 pin plug (flat). The power cable must be at least 3 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.			
7.3	Shall meet IEC 61010-2-040 Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2- 040: Particular requirements for sterilizers and washer-disinfectors used to treat medical materials.			
7.4				
8	**USER TRAINING**			
8.1	Must provide user training (including how to use and maintain the equipment) to concerned workers on site until familarity.			

8.2	Must provide Service training for repair to at least two Biomedical maintenance staff by trained company engineer regarding troubleshooting and repair at authorized training center and certification of training completion.			
9	**WARRANTY**			
9.1	Comprehensive warranty for 3 years including spare parts and 2 years free servicing on Autoclave.			
9.2	Warranty shall commence from date of satisfactory installation.			
10	**MAINTENANCE SERVICE DURING WARRANTY PERIOD**			
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
10.2	Preventive maintenance should be carried out minimum of 3 times annually with in warranty period.			
11	**INSTALLATION AND COMMISSIONING**			
11.1	Bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any pre requisites for isntallation to be communicated to the purchaser in advance, in detail.			
11.2	Inspections and decision to verify the compliance of the offered equipment as per specifications will be conducted by the technical team appointed by the Hospital. If found otherwise, hospital shall have right to reject the equipment.			
12	**DOCUMENTATION**			
12.1	Mandatorily provide User (operating) manual in English both printed form and in CD.			
12.2	Mandatorily provide Service manual in English both printed form and in CD.			
12.3	Must provide Certificate of calibration and inspection from factory.			
12.4	Please provide complete list of Spare parts and Accessories, along with costing, part number used in Autoclave.			
12.5	Company must mandatorily (compulsorily) provide Authorization letter from parent (Origin) company to prove that they have been legally authorized for dealership (Sales/ Service) of that particular equipment in Nepal.			
12.6	Bidders should mention model number and provide availability chart or Yes/No chart with original catalogue having specification as provided by the manufacturing company. Photocopy, Scan copy or self made specification will not be accepted.			

4. LED view box

S.N.	Technical Specification	Compliance (Yes/ No)	Deviation (if any)	Data sheet/catalog page no. supporting technical specification.
	LED view box			
	Manufacturer:			
	Brand:			
	Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	View box used for viewing the images of X-ray, CT/MRI at healthcare facilities.			
2	**Operational Requirements**			
2.1	Single film LED view box, operates on mains electric supply.			
3	**System Configuration**			
3.1	LED View Box (Single Film), complete unit.			
4	**Technical Specifications**			
4.1	Ultra slim design.			
4.2	LED backlit and shall have separate on/off function with separate rotary continuous adjustable brightness control at the bottom of panel for convenient operation.			
4.3	It shall have fully electronic continuous brightness control with adjustment range approx. up to 90%.			
4.4	Shall have no lag period in intensity modulation.			
4.5	Front sheet shall be made of polycarbonate or acrylic with antiglare.			
4.6	Shall have sturdy film clamping mechanism with automatic sensor induced on/off system.			
4.7	Illumination: High bright white LEDs.			
4.8	It shall have homogeneous illumination and shall have luminance of more than 1200 cd/m^2.			
4.9	LED light source shall have at least 20000 hours of operation.			
4.10	Shall be able to hold one full large size CT/MR films at a time with film has maximum size of 43cmX 35cm.			
5	**ACCESSORIES**			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders Shall 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 – 240V AC, 50Hz fitted with appropriate three pin flat plug. The power cable Shall be at least 3m in length.			
7	**Standards and Safety Requirements**			
7.1	Shall submit ISO13485:2003/AC:2007 for Medical Devices AND			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	**TRAINING**			
8.1	Must provide user training (including how to use and maintain the equipment) until complete familarity.			

8.2	Must provide service training (installation, assembling, disassembling, trouble shooting) to Bio maintenance staff onsite.			
9	**WARRANTY**			
9.1	Comprehensive warranty for 3 years on the system.			
9.2	The warranty starts from the day of complete satisfactory of installation of equipment.			
10	**MAINTENANCE DURING SERVICE PERIOD**			
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
10.2	Four preventive maintenance should be performed annually through out warranty period.			
10.3	95% uptime should be guaranteed. If down time exceeds 5% triple the downtime would be added as penalty to the warranty period.			
11	**GUARANTEE**			
11.1	The bidder must ensure the service and complete spare parts support for 10 years of the system, including accessories.			
12	**MAINTENANCE CONTRACT PROPOSAL**			
12.1	A written document for AMC (Annual Maintenance Contract) and CMC (Comprehensive Maintenance Contract) to be submitted separately.			
13	**INSTALLATION, INSPECTION, COMMISSIONING**			
13.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail			
13.2	Inspections to verify the compliance of the offered equipment as per specifications will be conducted by the technical team appointed by the Hospital and rejected if supplied equipment doe not fulfill specified technical requirements.			
13.3	The job description of Hospital technical team and Company Service Engineer should be clearly spelt out.			
14	**DOCUMENTATION**			
14.1	User (operating) manual in English in printed form. (Mandatory)			
14.2	Service/ Maintenance manual in English in printed form. (Mandatory)			
14.3	Certificate of calibration and inspection from factory.			
14.4	Please provide a complete list of Spare parts, Accessories and consumables along with cost and part numbers to be used with the system.			
14.5	Company Shall mandatorily (compulsorily) provide Authorization letter from parent (Origin) company proving that they have been legally authorized for dealership (Sales/ Service) of that particular equipment in Nepal.			
14.6	Bidders should mention model number and provide availability chart or Yes/No chart with original catalogue having specification as provided by the manufacturing company. Photocopy, Scan copy or self made specification will not be accepted.			

5. IV Stand, Four Hooks

S.N.	Technical Specification	Compliance (Yes/ No)	Deviation (if any)	Data sheet/catalog page no. supporting technical specification.
	IV STAND, FOUR HOOKS			
	Manufacturer:			
	Brand:			
	Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	IV/saline stand is used for hanging various intravenous items such as blood bag, glucose bottle etc.			
2	**Operational Requirements**			
2.1	Mobile IV stand on 5 castors with adjustable height.			
3	**System Configuration**			
3.1	Adjustable IV/saline stand with four hooks and five swivels castors.			
4	**Technical Specifications**			
4.1	**Materials:**			
4.2	· Base, supports column and hook: 304 grade fully stainless steel.			
4.3	· Wheel insert: aluminium			
4.4	· Wheel: rubber wheels for smooth drive			
4.5	Base: Heavy base on 5 antistatic swivel castors of approx. diameter Ø50mm.			
4.6	Branches: Square tube 25x25mm, 600mm width. (APPROX.)			
4.7	Support column: solid mechanism to which the upper pole is fixed; the pole has an adjustable height up to 2000mm.			
4.8	Standard sleeve: Diameter 30mm, height 1000mm with stainless steel locking sleeve.			
4.9	Serum rods: Diameter 16mm, height 1000mm.			
4.1O	Hook: Stainless steel 4 hooks welded together on the top of the serum rod.			
4.11	Load capacity: 12kg (3kg per hook)			
5	**ACCESSORIES, SPARES, 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 Shall 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.			

7	**Standards and Safety Requirements**			
7.1	Shall submit ISO 9001 0r ISO 13485:2003/AC: 2007 for Medical Devices AND			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	**TRAINING**			
8.1	Must provide user training (including how to use and maintain the equipment) until complete familarity.			
8.2	Must provide service training (installation, assembling, disassembling, trouble shooting) to Bio maintenance staff onsite.			
9	**WARRANTY**			
9.1	Comprehensive warranty for 3 years on the system against rust and castor damage			
9.2	The warranty starts from the day of complete satisfactory of installation of equipment.			
10	**MAINTENANCE DURING SERVICE PERIOD**			
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
10.2	Four preventive maintenance should be performed annually through out warranty period.			
10.3	95% uptime should be guaranteed. If down time exceeds 5% triple the downtime would be added as penalty to the warranty period.			
11	**GUARANTEE**			
11.1	The bidder must ensure the service and complete spare parts support for 10 years of the system, including accessories.			
12	**MAINTENANCE CONTRACT PROPOSAL**			
12.1	A written document for AMC (Annual Maintenance Contract) and CMC (Comprehensive Maintenance Contract) to be submitted separately.			
13	**INSTALLATION, INSPECTION, COMMISSIONING**			
13.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail			
13.2	Inspections to verify the compliance of the offered equipment as per specifications will be conducted by the technical team appointed by the Hospital and rejected if supplied equipment doe not fulfill specified technical requirements.			
13.3	The job description of Hospital technical team and Company Service Engineer should be clearly spelt out.			
14	**DOCUMENTATION**			
14.1	User (operating) manual in English in printed form. (Mandatory)			
14.2	Service/ Maintenance manual in English in printed form. (Mandatory)			
14.3	Certificate of calibration and inspection from factory.			
14.4	Please provide a complete list of Spare parts, Accessories and consumables along with cost and part numbers to be used with the system.			
14.5	Company Shall mandatorily (compulsorily) provide Authorization letter from parent (Origin) company proving that they have been legally authorized for dealership (Sales/ Service) of that particular equipment in Nepal.			

14.6	Bidders should mention model number and provide availability chart or Yes/No chart with original catalogue having specification as provided by the manufacturing company. Photocopy, Scan copy or self made specification will not be accepted.			

6. Blood Warmer

S.N.	Technical Specification	Compliance (Yes/ No)	Deviation (if any)	Data sheet/catalog page no. supporting technical specification.
	Brand:			
	Type/Model:			
	Country of Origin:			
1	**DESCRIPTION OF FUNCTION**			
1.1	Blood and infusion warmer provides a quick and versatile solution to help prevent inadvertent hypothermia during surgery and other procedures requiring fluid administration.			
2	**OPERATIONAL REQUIREMENT**			
2.1	Blood and infusionwarmer system that warms the blood, infusion solutions & supply of this heated infusion to the patient.			
3	**SYSTEM CONFIGURATION**			
3.1	Blood and infusion warmer System, complete unit.			
4	**TECHNICAL SPECIFICATION**			
4.1	Shall be have adjustable flow applicable to be used on neonate/pediatric patient, adult patients.			
4.2	Shall have technology to disperse heat evenly, eliminating potentially dangerous hotspots and overheating of fluids.			
4.3	Shall have Setting of temperature from 37 °C to 41 °C in 0.5 °C increments.			
4.4	Shall display the set temperature.			
4.5	Shall have warming circuit.			
4.6	Shall have high temperature alarm and low temperature alarm.			
4.7	Shall facilitates simultaneous warming of multiple transfusions / infusions			
4.8	Shall have self tests.			
4.9	Shall facilitate mounting on a normal railing and infusion stand.			
4.10	Shall be defibrillation proof.			
4.11	Shall be mains operated device.			
4.12	Shall accommodate selected temperature flow rates from KVO to approx. 500 ml/min or better.			
5	**ACCESSORIES, SPARES, CONSUMABLES**			
5.1	Infusion set (adult) - 20 pcs			
5.2	Infusion set (neonate/pediatric) - 20 pcs			
5.3	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. (inlcuding 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, 50 Hz, fiited with appropriate 3 pin plug (flat). The power cable must be at least 3 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.			
7.3	Certified for meting IEC60601-2-24: Particular requirements for the safety of infusion pumps and controllers.			
8	**USER TRAINING**			
8.1	Must provide user training (including how to use and maintain the equipment) to concerned workers on site until familarity.			

8.2	Must provide Service training for repair to Biomedical maintenance staff by trained company engineer on site regarding troubleshooting and repair.			
9	**WARRANTY**			
9.1	Comprehensive warranty for 3 years.			
9.2	Warranty shall commence from date of satisfactory installation.			
10	**MAINTENANCE SERVICE DURING WARRANTY PERIOD**			
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
10.2	Preventive maintenance should be carried out minimum of 3 times annually with in warranty period.			
11	**INSTALLATION AND COMMISSIONING**			
11.1	Bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any pre requisites for isntallation to be communicated to the purchaser in advance, in detail.			
11.2	Inspections and decision to verify the compliance of the offered equipment as per specifications will be conducted by the technical team appointed by the Hospital. If found otherwise, hospital shall have right to reject the equipment.			
12	**DOCUMENTATION**			
12.1	Mandatorily provide User (operating) manual in English both printed form and in CD.			
12.2	Mandatorily provide Service manual in English both printed form and in CD.			
12.3	Must provide Certificate of calibration and inspection from factory.			
12.4	Please provide complete list of Spare parts and Accessories, along with costing, part number used in Flash Autoclave applicable for three years after the expiry of warranty period.			
12.5	Company must mandatorily (compulsorily) provide Authorization letter from parent (Origin) company to prove that they have been legally authorized for dealership (Sales/ Service) of that particular equipment in Nepal.			
12.6	Bidders should mention model number and provide availability chart or Yes/No chart with original catalogue having specification as provided by the manufacturing company. Photocopy, Scan copy or self made specification will not be accepted.			

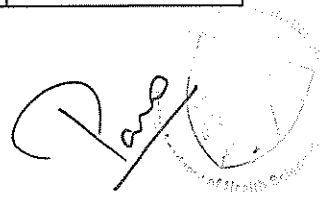
7. Laryngoscope Fiberoptic

S.N	Technical Specification	Feature Available (yes/No)	Deviation from the Specification	page no. of Datasheet/ Catalogue in support of Specification
	LARYNGOSCOPE FIBEROPTIC			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	**DESCRIPTION OF FUNCTION**			
1.1	Laryngoscopy to facilitate tracheal intubation during general anaesthesia or cardiopulmonary resuscitation or for procedures on the larynx or other parts of the upper tracheobronchial tree.			
2	**OPERATIONAL REQUIREMENT**			
2.1	Battery powered laryngoscope unit (handle to take C-size batteries).			
3	**SYSTEM CONFIGURATION**			
3.1	Laryngoscope set (McIntosh or equivalent)			
4	**TECHNICAL SPECIFICATION**			
4.1	Blades to be made of surgical grade stainless steel.			
4.2	Clip-on quick release mechanism for blades, which also provides electrical contact for blade light. Light to be activated when blade is engaged.			
4.3	Shall operate on C-size batteries.			
4.4	Handle/battery unit to be made of non-ferrous metal.			
4.5	Shall have Blades: One each of following sizes:			
4.6	i-Neonate size 00			
4.7	ii-Adult small size 1,2,3,4			
4.8	Shall have Set of C-sized batteries.			
5	**ACCESSORIES, SPARES, CONSUMABLES**			
5.1	Extra bulb - 20 pcs			
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. (inlcuding 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, 50 Hz, fiited with appropriate 3 pin plug (flat). The power cable must be at least 3 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	**USER TRAINING**			
8.1	Must provide user training (including how to use and maintain the equipment) to concerned workers on site until familarity.			

8.2	Must provide Service training for repair to Biomedical maintenance staff by trained company engineer on site regarding troubleshooting and repair.			
9	**WARRANTY**			
9.1	Comprehensive warranty for 3 years including spare parts and 2 years free servicing.			
9.2	Warranty shall commence from date of satisfactory installation.			
10	**MAINTENANCE SERVICE DURING WARRANTY PERIOD**			
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
10.2	Preventive maintenance should be carried out minimum of 3 times annually with in warranty period.			
11	**INSTALLATION AND COMMISSIONING**			
11.1	Bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any pre requisites for isntallation to be communicated to the purchaser in advance, in detail.			
11.2	Inspections and decision to verify the compliance of the offered equipment as per specifications will be conducted by the technical team appointed by the Hospital. If found otherwise, hospital shall have right to reject the equipment.			
12	**DOCUMENTATION**			
12.1	Mandatorily provide User (operating) manual in English both printed form and in CD.			
12.2	Mandatorily provide Service manual in English both printed form and in CD.			
12.3	Must provide Certificate of calibration and inspection from factory.			
12.4	Please provide complete list of Spare parts and Accessories, along with costing.			
12.5	Company must mandatorily (compulsorily) provide Authorization letter from parent (Origin) company to prove that they have been legally authorized for dealership (Sales/ Service) of that particular equipment in Nepal.			
12.6	Bidders should mention model number and provide availability chart or Yes/No chart with original catalogue having specification as provided by the manufacturing company. Photocopy, Scan copy or self made specification will not be accepted.			

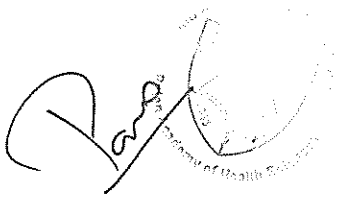
8. Portable Pulse Oximeter

S.N.	Technical Specification	Compliance (Yes/ No)	Deviation (if any)	Data sheet/catalog page no. supporting technical specification.
	PORTABLE PULSE OXIMETER			
	Manufacturer:			
	Brand:			
	Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	A pulse Oxymeter is a medical device that indirectly measures the amount of oxygen in a patient's blood (as opposed to measuring oxygen saturation directly through a blood sample) and changes in blood volume in the skin, producing a photoplethysmography.			
2	**Operational Requirements**			
2.1	Suitable for all types of patient range, adult, paediatric and infant and shall operate on AC mains as well as from internal rechargeable battery.			
3	**System Configuration**			
3.1	Pulse Oxymeter, complete unit with all standard accessories.			
4	**Technical Specifications**			
4.1	Shall be portable unit.			
4.2	Display- high definition, LCD, backlight illuminated.			
4.3	Shall display SPO2 waveform, SPO2 and PR numerical value, battery status.			
4.4	SPO2 range: 70-100 %.			
4.5	Accuracy of SPO2: 2%.			
4.6	Pulse rate range must be 30-240bpm.			
4.7	Audio-visual alarms: High/low SpO2 and pulse rate, sensor off, sensor failure, low battery.			
4.8	Shall be applicable to neonates, pediatrics, adult patients.			
4.9	RS 232C interface for data communication.			
4.1O	Shall have rechargeable battery and shall have battery back-up for at least 8 hours after complete battery charge. Battery charger along with AC adaptor.			
4.11	Shall have 48 hours parameters, and trend data storage.			
5	**ACCESSORIES, SPARES, CONSUMABLES**			
5.1	Reusable adult SpO2 sensor with cable: 05 nos.			
5.2	Battery charger: 01 pc. Shall be of same manufacturer as the main unit.			
5.3	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 Shall specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			



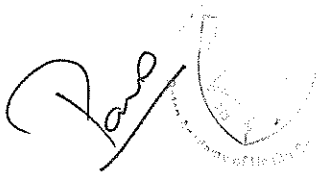
6.1	The system offered Shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
7	**Standards and Safety Requirements**			
7.1	Shall submit ISO13485:2003/AC:2007 for Medical Devices AND			
7.2	CE (93/42 EEC Directives) and USFDA approved product certificate.			
	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
8	**TRAINING**			
8.1	Shall provide user training (including how to use and maintain the equipment) until complete familarity.			
8.2	Shall provide service training (installation, assembling, disassembling, trouble shooting) to Bio maintenance staff onsite.			
9	**WARRANTY**			
9.1	Comprehensive warranty for 3 years on the system against rust and castors break.			
9.2	The warranty starts from the day of complete satisfactory of installation of equipment.			
10	**MAINTENANCE DURING SERVICE PERIOD**			
10.1	During warranty period supplier Shall ensure corrective/breakdown maintenance whenever required.			
10.2	Four preventive maintenance should be performed annually through out warranty period.			
10.3	95% uptime should be guaranteed. If down time exceeds 5% triple the downtime would be added as penalty to the warranty period.			
11	**GUARANTEE**			
11.1	The bidder Shall ensure the service and complete spare parts support for 10 years of the system, including accessories.			
12	**MAINTENANCE CONTRACT PROPOSAL**			
12.1	A written document for AMC (Annual Maintenance Contract) and CMC (Comprehensive Maintenance Contract) to be submitted separately.			
13	**INSTALLATION, INSPECTION, COMMISSIONING**			
13.1	The bidder Shall arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail			
13.2	Inspections to verify the compliance of the offered equipment as per specifications will be conducted by the technical team appointed by the Hospital and rejected if supplied equipment doe not fulfill specified technical requirements.			
13.3	The job description of Hospital technical team and Company Service Engineer should be clearly spelt out.			
14	**DOCUMENTATION**			
14.1	User (operating) manual in English in printed form. (Mandatory)			
14.2	Service/ Maintenance manual in English in printed form. (Mandatory)			
14.3	Certificate of calibration and inspection from factory.			

14.4	Please provide a complete list of Spare parts, Accessories and consumables along with cost and part numbers to be used with the system.			
14.5	Company Shall mandatorily (compulsorily) provide Authorization letter from parent (Origin) company proving that they have been legally authorized for dealership (Sales/ Service) of that particular equipment in Nepal.			
14.6	Bidders should mention model number and provide availability chart or Yes/No chart with original catalogue having specification as provided by the manufacturing company. Photocopy, Scan copy or self made specification will not be accepted.			

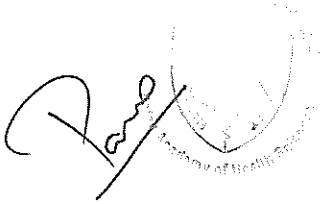


9. Nebulizer

S.N	Technical Specification	Feature Available (Yes/No)	Deviation (if any)	Page no. of data sheet/ catalogue in support of specification
	NEBULIZER			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	**DESCRIPTION OF FUNCTION**			
	Nebuliser is a device used to administer medication to people in forms of a liquid mist to the airways. It is commonly used in treating cystic fibrosis, asthma, and other respiratory diseases			
2	**OPERATIONAL REQUIREMENTS**			
2.1	Lightweight and compact, diaphragm type nebuliser.			
3	**SYSTEM CONFIGURATION**			
3.1	Nebuliser, diaphragm type with complete accessories.			
4	**TECHNICAL SPECIFICATION**			
4.1	Shall be compact, lightweight, portbale, easy to use and low noise.			
4.2	Shall produce particle of size 5µm or smaller.			
4.3	Shall have air dust filter.			
4.4	Shall be able to deliver a flow rate ≥ 7 lpm.			
4.5	Shall have air pressure >= 40 psi.			
4.6	Shall be supplied with nebulization accessory kit with mask for adult and pediatric patient - 3 nos each.			
4.7	Shall have sound less than 40 db.			
5	**ACCESSORIES**			
5.1	Air dust filters- 5 nos.			
5.3	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 Shall specify the quantity of every item included in their offer. (including items not listed 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, 50 Hz Single phased fitted with appropriate 3 pin plug (FLAT). The power cable Shall be at least 3m long.			
7	**STANDARDS AND SAFETY REQUIREMENTS**			
7.1	Shall submit ISO13485:2003/AC:2007 for Medical Devices AND			
7.2	CE (93/42 EEC Directives) and /or USFDA approved product certificate.			
8	**TRAINING**			
8.1	Shall provide user training (including application: how to use and maintain the equipment) to concerned user until complete familarity with the system.			



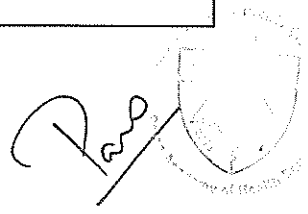
8.2	Shall provide service training (installation, assembling, disassembling, trouble shooting) to Bio maintenance staff onsite.			
9	**WARRANTY**			
9.1	Comprehensive warranty for 3 years on system.			
9.2	The warranty starts from the day of complete satisfactory of installation of equipment.			
10	**MAINTENANCE DURING SERVICE PERIOD**			
10.1	During warranty period supplier Shall ensure corrective/breakdown maintenance whenever required.			
10.2	Four preventive maintenance should be performed annually through out warranty period.			
10.3	95% uptime should be guaranteed. If down time exceeds 5% triple the downtime would be added as penalty to the warranty period.			
11	**GUARANTEE**			
11.1	The bidder Shall ensure the service and complete spare parts support for 10 years of the system, including accessories.			
12	**MAINTENANCE CONTRACT PROPOSAL**			
12.1	A written document for AMC (Annual Maintenance Contract) and CMC (Comprehensive Maintenance Contract) to be submitted separately.			
13	**INSTALLATION, INSPECTION, COMMISSIONING**			
13.1	The bidder Shall arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail			
13.2	Inspections to verify the compliance of the offered equipment as per specifications will be conducted by the technical team appointed by the Hospital. Failure to demonstrate listed specification shall result in rejection of the equipment.			
14	**DOCUMENTATION**			
14.1	User (operating) manual in Englishin printed form.			
14.2	Service/ Maintenance manual in English in printed form.			
14.3	Certificate of calibration and inspection from factory.			
14.4	Please provide a complete list of Spare parts, Accessories and consumables along with cost and part numbers to be used with the system.			
14.5	Company Shall mandatorily (compulsorily) provide Authorization letter from parent (Origin) company proving that they have been legally authorized for dealership (Sales/ Service) of that particular equipment in Nepal.			
14.6	Bidders should mention model number and provide availability chart or Yes/No chart with original catalogue having specification as provided by the manufacturing company. Photocopy, Scan copy or self made specification will not be accepted.			



10. Sphygomomanometer

S.N	Technical Specification	Feature Available (Yes/No)	Deviation (if any)	Page no. of data sheet/ catalogue in support of specification
	SPHYGOMOMANOMETER			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	**DESCRIPTION OF FUNCTION**			
1.1	Sphygmomanometer is a device used to measure blood pressure, composed of an inflatable cuff to restrict blood flow, and a mechanical manometer to measure the pressure.			
2	**OPERATIONAL REQUIREMENT**			
2.1	Aneroid sphygmomanometer having a dial to show clear numbers and pointer / needle for measurement of pressure.			
3	**SYSTEM CONFIGURATION**			
3.1	Aneroid sphygmomanometer			
3.2	Cuffs for child size and for adult size (regular)			
3.3	Inflation bulb			
3.4	Mobile stand with wheels and brake and basket.			
4	**TECHNICAL SPECIFICATION**			
4.1	Shall be aneroid type sphygmomanometer.			
4.2	Shall have robust stand with smooth and 360 degree rotating wheel and brake.			
4.3	Shall have spacious basket for placing the tubes and the cuffs.			
4.4	Non wearing air release valve with fine adjustment.			
4.5	Shall have maximum error tolerance of +/- 2mm Hg.			
4.6	Shall have micro- filter to protect the release valve and measurement system.			
4.7	Shall be shockproof design.			
5	**ACCESSORIES**			
5.1	Spare adult cuff (M) - 5 pcs			
5.2	Spare BP inflation bulb - 5 pcs			
5.3	Spare BP spiral tube (3m length) - 5 pcs			
5.4	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 Shall specify the quantity of every item included in their offer. (including items not listed 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**			

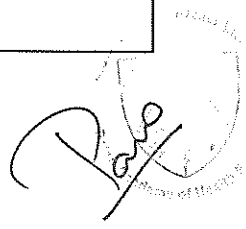
7.1	Shall submit ISO13485:2003/AC:2007 for Medical Devices AND			
7.2	CE (93/42 EEC Directives) and /or USFDA approved product certificate.			
8	**TRAINING**			
8.1	Shall provide user training (including application: how to use and maintain the equipment) to concerned user until complete familarity with the system.			
8.2	Shall provide service training (installation, assembling, disassembling, trouble shooting) to Bio maintenance staff onsite.			
9	**WARRANTY**			
9.1	Comprehensive warranty for 3 years on system.			
9.2	The warranty starts from the day of complete satisfactory of installation of equipment.			
10	**MAINTENANCE DURING SERVICE PERIOD**			
10.1	During warranty period supplier Shall ensure corrective/breakdown maintenance whenever required.			
10.2	Four preventive maintenance should be performed annually through out warranty period.			
10.3	95% uptime should be guaranteed. If down time exceeds 5% triple the downtime would be added as penalty to the warranty period.			
11	**GUARANTEE**			
11.1	The bidder Shall ensure the service and complete spare parts support for 10 years of the system, including accessories.			
12	**MAINTENANCE CONTRACT PROPOSAL**			
12.1	A written document for AMC (Annual Maintenance Contract) and CMC (Comprehensive Maintenance Contract) to be submitted separately.			
13	**INSTALLATION, INSPECTION, COMMISSIONING**			
13.1	The bidder Shall arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail			
13.2	Inspections to verify the compliance of the offered equipment as per specifications will be conducted by the technical team appointed by the Hospital. Failure to demonstrate listed specification shall result in rejection of the equipment.			
14	**DOCUMENTATION**			
14.1	User (operating) manual in English			
14.2	Service/ Maintenance manual in English			
14.3	Must provide Certificate of calibration and inspection from factory/manufacturer.			
14.4	Please provide a complete list of Spare parts, Accessories and consumables along with cost and part numbers to be used with the system.			



14.5	Company Shall mandatorily (compulsorily) provide Authorization letter from parent (Origin) company proving that they have been legally authorized for dealership (Sales/ Service) of that particular equipment in Nepal.			
14.6	Bidders should mention model number and provide availability chart or Yes/No chart with original catalogue having specification as provided by the manufacturing company. Photocopy, Scan copy or self made specification will not be accepted.			

11. Portable Ultrasound Machine

S.N	Technical Specification	Compliance (YES/ NO)	Deviation (If any)	Corresponding page no. in submitted catalog/ brochure supporting the technical requirement.
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	**DESCRIPTION**			
	The portable Color Doppler Ultrasound System should be based on fully digital technology and have the facility of 2D, M-Mode, CDI, PW Doppler, Power Doppler, HPRF, biopsy guide and enhancement.			
2	**TECHNICAL REQUIREMENT**			
2.1	Monitor size should be minimum 15 inch High Resolution LCD anti glare Display monitor.			
2.2	System should have minimum 2 universal active probe ports with electronic switching facility from key board without probe adapter.			
2.3	Operating modes B-mode, M-Mode, B/M Mode, Doppler Mode, Color flow, B/Color mode Power Doppler, B/Color flow, PW Doppler, CW Doppler, Dual mode, Split mode.			
2.4	Shall have velocity colour to detect colour flow with PW and CW.			
2.5	System to support broadband & multi frequency probes spanning a frequency of minimum 1-15 MHz			
2.6	System should have a dynamic range of minimum 200 dB in B mode. Please mention dynamic range in the technical bid with supporting specification sheet.			
2.7	Cine loop as well as cine scroll facility in B mode with cine memory of 1000 frames in B mode.			
2.8	Should have spatial compound Imaging Technology . It should show multiple transmitted line of sight in convex, linear and phased array probes.			
2.9	System should have Auto trace & automatic Doppler calculations in Live & frozen images.			
2.1O	System must be offered with Speckle Reduction Imaging technology .			
2.11	System should have scanning depth of 30 cm and supported with required documents.			
2.12	System should have B mode frame rate of at least 900 frames/second. Acquisition frame rate should be clearly mentioned in the technical quote and supported with documents			



2.13	The System should have Panoramic imaging and trapezoidal imaging mode for extended field of view imaging.			
2.14	Obstetric analysis; BPD, CRL, AC, HC, FL, GS, GA, EDD, Fetal weight, Amniotic fluid. Perferable: GA, HL, TL, RL.			
2.15	Advanced measurements and calculation package for abdominal, Ob, Gynae, urology, vascular (peripheral, cerebrovascular) , muscoloskeletal must be available.			
2.16	Automatic OB measurement and calculation must be available			
2.17	Shall have automated measurements of intima media thickness in carotids and other superficial vessels.			
2.18	Shall have harmonic imaging feature.			
2.19	Shall have real time adjustment of system gain for better spatial and contrast resolution of tissue.			
2.2O	Shall have triplex mode.			
2.21	Shall have biopsy guide, biopsy enhancement for point of care, anesthetic use.			
2.22	Shall have lithium ion inbulit internal battery with battery backup of at least one hour for routine examination.			
2.23	Shall come with manufacturer trolley.			
3	Following transducers should be available:			
3.1	Linear array transducer with 4 to 16 MHz operating frequency . Can be used for musculoskeletal, pediatric radiology, small parts, point of care, anesthesia application.			
3.2	Curved array transducer with 2 to 5 MHz operating frequency range for general purpose adult abdominal and gynecological applications.			
3.3	Phased array transducer with 1 to 6 MHz operating freqency range for cardiac scanning.			
4	**ACCESSORIES, SPARE PARTS, CONSUMABLES**			
4.1	a. Thermal B/W Printer – 1 set			
	b. Gel – 5 bottles			
	c. Thermal paper – 10 rolls (TYPE V)			
	d. Thermal head cleaner - 3 pcs			
4.2	All standard accessories, consumables and spare parts required for the proper operation of the above item shall be included in the offer.			
4.3	Bidder shall specify in a separate document the quantity and details of any items included in this offer which have not been specified in this Technical Specification.			
5	**POWER SUPPLY**			
5.1	Power supply: 220 - 240 VAC, 50 Hz Single Phase , 50 Hz fitted with appropriate 3 pin plug Flat.			
5.2	The power cable must be at least 3 meters in length.			
6	**STANDARD AND SAFETY**			

6.1	Should be European CE and USFDA (510K) approved product with certificate.			
6.2	Must submit ISO9001 or ISO 13485: 2003/AC: 2007			
7	WARRANTY			
7.1	Three years complete comprehensive warranty on the System along with all PROBES supplied. Followed by 2 years of free servicing.			
7.2	The warranty starts from the day of complete satisfactory of installation of equipment.			
8	**GUARANTEE**			
8.1	The bidder must ensure the service and complete spare parts support for 10 years of the system, including accessories.			
9	**MAINTENANCE DURING WARRANTY PERIOD**			
9.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with corrective/breakdown maintenance whenever required.			
9.2	Minimum 4 Preventive Maintenance service to be carried out yearly.			
9.3	95% uptime should be guaranteed. If down time exceeds 5% triple the downtime would be added as penalty to the warranty period.			
10	**MAINTENANCE CONTRACT PROPOSAL**			
10.1	A written document for AMC (Annual Maintenance Contract) and CMC (Comprehensive Maintenance Contract) to be submitted separately.			
11	TRAINING			
11.1	Must provide Clinical Application training to all concerned doctors.			
11.2	Must provide Service training (maintenance and troubleshooting) to at least two Biomedical maintenance staff by trained company engineer at authorized regional support center and provice certificate of service training completion.			
12	**INSTALLATION, INSPECTION, COMMISSIONING**			
12.1	Suppliers must accomplish proper installation and commissioning of the equipment on site. Inspections to verify the compliance of the offered equipment as per specifications will be conducted by the technical team appointed by the Hospital. Unability to pass the verification shall result in cancellation of the tender. Bidder to provide letter stating confirmation with the above statement.			
12.3	Log book with instruction for daily, weekly, monthly, and quarterly maintenance checklist should be provided.			
12.4	The job description of Hospital technical team and Company Service Engineer should be clearly spelt out.			
13	DOCUMENTATION			

13.1	User (operating) manual in English both printed form and CD.			
13.2	Service (Technician/Maintenance) manual in English both printed form and CD.			
13.3	Certificate of manudacture, calibration and inspection from factory.			
13.4	Please provide a complete list of Spare parts and Accessories, along with cost and part numbers to be used with the system.			
13.5	Bidders must provide letter of authorization from Company of Origin or Parent company citing that they have been officially recognized as the dealer for sales/service support in Nepal for the tendered system.			
13.6	Bidders should mention model number and provide availability chart or Yes/No chart with original catalogue having specification as provided by the manufacturing company. Photocopy, Scan copy or self made specification will not be accepted.