1 **ECG Machine**

No.	Item Specifications	Fill your Specification
1	**Description of Function**	
1.1	ECG Machine is primary equipment to record ECG Signal in various configurations.	
2	**Operational Requirements**	
2.1	Microprocessor controlled digital 3 channel ECG machine suitable for adult, paediatric and neonate applications.	
3	**System Configuration**	
3.1	3 channel ECG machine with complete accessories.	
4	**Technical Specifications**	
4.1	3 channel ECG machine with simultaneous acquisition of 12 standard leads: aVR, aVL, aVF, I, II, III and V1-6 pre-cordials.	
4.2	Internal memory for storage of up to 50 ECGs.	
4.3	Splash-resistant alphanumeric keyboard with function keys.	
4.4	With zeroing reset, auto-base-line correction (0.5Hz) and 1mV test/calibration signal.	
4.5	Filter setting for line-frequency (50 or 60Hz) and tremor.	
4.6	Continuous check on the quality of electrodes connection, audio visual alert on loss of signal.	
4.7	Appropriately protected for operation during defibrillation.	
4.8	Alphanumeric colour LCD display, approximately: 4".	
	Display shows ECG-curves, heart rate, patient name and ID, time, age, sex, speed and filter setting.	
4.9	ECG machine shall have 3 modes of operation – Automatic, Manual & Rhythm.	
4.10	Shall have measurements and analysis programs.	
4.11	Measurements: QRS rate, PR interval, QRS duration, QT/QTC, P/QRT/T axes, RV5/SV1.	
4.12	Shall have interpretation and waveform analysis.	
4.13	Shall have maintenance free digital thermal array printer.	
4.14	Printer shall be able to print ECG report and must have on/off selection.	
4.15	Shall have ECG lead annotation facility.	
4.16	Paper speed, user adjustable: 25 and 50mm/sec.	
4.17	CMRR shall be > 100dB.	
4.18	Sensitivity, automatic or user selectable: 5, 10 and 20mm/mV.	
4.19	Rechargeable battery & charger integrated in the device.	
4.20	Battery autonomy, approximately 2 hours.	
4.21	The unit shall be compact, light in weight, easy to carry.	
5	**Accessories, spares and consumables**	
5.1	**Accessories:**	
	□ Reusable Patient cable with reusable electrodes for adult & paediatric- 2 set.	
	□ Reusable patient cable with reusable electrodes for neonate & infant- 1 set.	
	□ Extremity clamp electrodes, reusable- 4 nos.	
	□ Recording paper rolls- 12 rolls	
	□ Bottles of electrode gel, approximately 350ml- 2 nos.	
	□ Spare rechargeable battery pack- 1 no.	
	□ Set of spare fuses- 1 set	
	□ Plastic protective dustcover- 1 no.	
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.	
6	**Operating Environment**	
6.1	The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature,Humidity, etc. for Sudan.	
6.2	Power supply: 220–240V AC, 50Hz fitted with appropriate plug type D round 3 pins. 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 Requirements and IEC-60601-2-25 Safety of Electrocardiograms.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years after acceptance.	
10	**Maintenance Service During Warranty Period**	

No.	Item Specifications	Fill your Specification
10.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.	
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.	

2 **Patient Monitor**

No.	Item Specifications	Fill your Specification
1	**Description of Function**	
1.1	NIBP/Vital Sign Monitor is used to continuously monitor the vital parameters including NIBP of critically ill patients.	
2	**Operational Requirements**	
2.1	Capability of storage of patient data and printing of patient reports.	
2.2	Capability to integrate with the HIS and transfer the data through LAN / Wireless LAN to any other monitoring room / doctor's desk. Must be HL-7 compatible for transmitting and receiving data to/from LAN/HIS	
3	**System Configuration**	
3.1	NIBP/Vital Signs Monitor with complete accessories.	
4	**Technical Specifications**	
4.1	Monitoring parameters;- ECG, respiration,NIBP,SPO2 and temperature	
4.2	Digital and 6 waves / traces display on minimum 9 inches TFT/LCD Display Screen.	
4.3	Monitor must have audible and visual alarms capability. Alarms must have three distinct audible alarm tones to distinguish alarm levels as under. Also monitor must permit automatic viewing of alarming parameter waveform and numeric from any bedside in alarm as and when connected in a network.	
4.4	Must include hemodynamic calculations and vital sign and graphic trends. Trends must be automatically stored for at least 24 hours in at least one minute intervals.	
4.5	Numeric monitored data shall be viewable and recordable in a patient chart type format in at least 1, 5, 15, 60 minutes intervals.	
4.6	Convenient handle for carrying the same	
4.7	Able to fix with bed/trolley.	
4.8	Inbuilt rechargeable battery for minimum 3 hours of operation.	
5	**Accessories, spares and consumables**	
5.1	**Accessories:**	
	□ Patient cable -01 no.	
	□ Adult Cuff – 01 no.	
	□ Paediatric Cuff -01 no.	
	□ Adult Probe SPO2 -02 nos.	
	□ Paediatric Probe SPO2 -02 nos.	
	□ Skin Temp Probe -02 nos.	
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.	
6	**Operating Environment**	
6.1	The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature,Humidity, etc. for Sudan.	
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 or TUV approved product certificate.	
7.3	Shall meet IEC-60601-1-2:2001 General Requirements of Safety for Electromagnetic Compatibility or must comply with 89/366/EEC; EMC directive.	
7.4	Shall meet the safety requirements as per IEC 60601-2-27:1994—Medical electrical equipment—Part 2: Particular requirements for the safety of electrocardiographic monitoring equipment.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years from acceptance.	
10	**Maintenance Service During Warranty Period**	

No.	Item Specifications	**Fill your Specification**
10.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required.	
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 number and costing.	
11.4	Certificate of calibration and inspection from factory.	
4.1	3 channel ECG machine with simultaneous acquisition of 12 standard leads: aVR, aVL, aVF, I, II, III and V1-6 pre-cordials.	
4.2	Internal memory for storage of up to 50 ECGs.	
4.3	Splash-resistant alphanumeric keyboard with function keys.	
4.4	With zeroing reset, auto-base-line correction (0.5Hz) and 1mV test/calibration signal.	
4.5	Filter setting for line-frequency (50 or 60Hz) and tremor.	
4.6	Continuous check on the quality of electrodes connection, audio visual alert on loss of signal.	
4.7	Appropriately protected for operation during defibrillation.	
4.8	Alphanumeric colour LCD display, approximately: 4”.	
	Display shows ECG-curves, heart rate, patient name and ID, time, age, sex, speed and filter setting.	
4.9	ECG machine shall have 3 modes of operation – Automatic, Manual & Rhythm.	
4.10	Shall have measurements and analysis programs.	
4.11	Measurements: QRS rate, PR interval, QRS duration, QT/QTC, P/QRT/T axes, RV5/SV1.	
4.12	Shall have interpretation and waveform analysis.	
4.13	Shall have maintenance free digital thermal array printer.	
4.14	Printer shall be able to print ECG report and must have on/off selection.	
4.15	Shall have ECG lead annotation facility.	
4.16	Paper speed, user adjustable: 25 and 50mm/sec.	
4.17	CMRR shall be > 100dB.	
4.18	Sensitivity, automatic or user selectable: 5, 10 and 20mm/mV.	
4.19	Rechargeable battery & charger integrated in the device.	
4.20	Battery autonomy, approximately 2 hours.	
4.21	The unit shall be compact, light in weight, easy to carry.	
5	**Accessories, spares and consumables**	
5.1	**Accessories:**	
	□ Reusable Patient cable with reusable electrodes for adult & paediatric- 2 set.	
	□ Reusable patient cable with reusable electrodes for neonate & infant- 1 set.	
	□ Extremity clamp electrodes, reusable- 4 nos.	
	□ Recording paper rolls- 12 rolls	
	□ Bottles of electrode gel, approximately 350ml- 2 nos.	
	□ Spare rechargeable battery pack- 1 no.	
	□ Set of spare fuses- 1 set	
	□ Plastic protective dustcover- 1 no.	
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.	
6	**Operating Environment**	
6.1	The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature,Humidity, etc. for Sudan.	
6.2	Power supply: 220–240V AC, 50Hz fitted with appropriate plug type D round 3 pins. 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 Requirements and IEC-60601-2-25 Safety of Electrocardiograms.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.	
11	**Documentation**	
11.1	User (Operating) manual in English.	

No.	Item Specifications	Fill your Specification
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.	

3 **Portable Ultrasound Machine**

No.	Item Specifications	Fill your Specification
1	**Description of Function**	
1.1	A general purpose fully digital B & W Ultrasound imaging system.	
2	**Operational Requirements**	
2.1	It shall operate on mains AC supply.	
3	**System Configuration**	
3.1	System shall come with main unit, 1 probe, 1 unit of black and white video thermal printer and Ultrasound gel warmer 1 unit.	
4	**Technical Specifications**	
4.1	Latest technology and all digital beam former general purpose standalone ultrasound machine with integrated light weight mobile cart.	
4.2	Main applications: OB/GYN, abdominal, peripheral vessels and small parts.	
4.3	The system shall have at least 12" or higher flat LCD monitor with tilt & swivel facilities.	
4.4	Shall have B-mode, M-mode, B/M mode, 2B mode & 2D mode.	
4.5	The system must have at least Two active probe ports for easy use and convenient operation.	
4.6	256 Grey shades for sharp contrast resolutions.	
4.7	Controls for depth, gain compensation, body markers with transducer position.	
4.8	Shall have real time continuous dynamic focus.	
4.9	Shall have facility for image zoom, freeze, text annotation.	
4.10	The system shall have extensive calculation software package for Ob/Gyn and general imaging.	
4.11	The system must have provision for measurement and calculation of distance, area, volume, heart rate and circumference on the image.	
4.12	The system shall have Tissue Harmonic Imaging.	
4.13	Near and far gain adjustable.	
4.14	Contrast, adjustable.	
4.15	Focus: auto adjustable.	
4.16	Shall have an alpha-numeric keyboard with easy access scans controls and track ball and status display.	
4.17	Cine memory of 250 frames for cine loop playback.	
4.18	Frame rate: not less than 50fps.	
4.19	Display depth: minimum 28-30cm.	
4.20	Dynamic range, selectable up to approximately 165dB.	
4.21	Image storage: Minimum 200 patient's images on main unit.	
4.22	Shall have facility for inbuilt CD writer.	
4.23	System shall be DICOM ready and capable of being interfaced with HIS/RIS/PACS.	
4.24	Facility for future upgradeability.	
4.25	Probe: 2 to 5 MHz convex probe for Obs. /Gyn. and abdominal application is to be supplied.	
5	**Accessories, spares and consumables**	
5.1	**Accessories:**	
	□ Black and white video thermal printer with 50 rolls of high density recording paper: 01 no.	
	□ DVD/CD Recorder with DICOM media transfer.	
	□ Ultrasound gel warmer: 01 unit.	
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.	
6	**Operating Environment**	
6.1	The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature,Humidity, etc. for Sudan.	
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	Shall provide UPS of suitable rating with voltage regulation and spike protection for 30 minutes back-up.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO 13485:2003/AC: 2007 AND	
7.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.	

No.	Item Specifications	Fill your Specification
7.3	Electrical safety conforms to standards for Electrical Safety IEC 60601-2-37 Medical electrical equipment – Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.	
11	**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 number and costing.	
11.4	Certificate of calibration and inspection from factory.	

4 **Electric Suction Machine 2 Bottle**

No.	Item Specifications	Fill your Specification
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 Jar.	
	□ Suction tubing.	
	□ Two bottles.	
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 oC, with thermal cut-outs.	
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 . 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 autoclaveable.	
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.	
5	**Accessories, spares and consumables**	
5.1	**Accessories:**	
	□ Spare bottle: 02 nos.	
	□ Lids: 02 nos.	
	□ Rubber Seals: 02 nos.	
	□ Blades: 02 nos.	
	□ Suction tubing set at least 5 metres: 02 nos.	
	□ Spare fuse: 01 set.	
	□ Bacterial filter : 05 nos.	
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.	
6	**Operating Environment**	
6.1	The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature,Humidity, etc. for Sudan.	
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**	

No.	Item Specifications	Fill your Specification
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND	
7.2	CE (93/42 EEC Directives) or USFDA or TUV 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	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
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.	

5

Adult Scale With Tap

No.	Item Specifications	Fill your Specification
1	**Description of Function**	
1.1	Used for routine height and weight measurements of patients, paediatric to adult.	
2	**Operational Requirements**	
2.1	It must be a platform type of weight and height measuring scale on which the patient can stand for measurement of weight and height.	
3	**System Configuration**	
3.1	Weighing Machine with Height Measuring Scale, Mechanical , paediatric to adult patients, complete unit.	
4	**Technical Specifications**	
	It must measure the weight in kilogram.	
	It must measure the height in centimetre.	
	Capacity weight: up to 200 kg.	
	Graduation: ≤ 100 g.	
	Base Measurement (platform): ≥ 330 x 80 x 340 mm.	
	It must be mounted on transport castors with breaks to allow free mobility from one place to other.	
	Required Accessories: Offer must include telescoping measuring rod up to minimum of 200 cm.	
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.	
6	**Operating Environment**	
6.1	The product offered shall be designed to be stored and to operate normally under Climate ,Temperature , Humidity, etc. for Sudan.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO 9001 or ISO13485:2003/AC:2007 for Medical Devices AND	
7.2	CE or USFDA approved product certificate.	
8	**Warranty**	
8.1	Comprehensive warranty for 2 years.	
9	**Maintenance Service During Warranty Period**	
9.1	Standard warranty conditions are applicable.	
10	**Installation and Commissioning**	
10.1	The supplier must accomplish proper commissioning of the item onsite.	
11	**Documentation**	
11.1	User and/or service manual shall be supplied in English.	

6

Manual Patient Bed With Mattress (One Movement)

No.	Item Specifications	Fill your Specification
1	**Description of Function**	

No.	Item Specifications	Fill your Specification
1.1	A hospital bed is a bed specially designed for hospitalized patients in need of patient ease. These beds have special features both for the comfort and well-being of the patient and for the convenience of hospital staff.	
1.2	Mattress is to provide a comfortable platform to rest or sleep upon the bed.	
2	**Operational Requirements**	
2.1	The patient bed shall be made of solid steel construction with anti-corrosive and antirust treated baked hard epoxy powder coating	
3	**System Configuration**	
3.1	Hospital Bed epoxy powder coated	
4	**Technical Specifications**	
4.1	Bed base shall be anti-corrosive and antirust treated epoxy powder coated welded steel bar or epoxy powder coated 18G perforated sheet top to improve ventilation.	
4.2	The patient bed shall be fixed height with 2 sections where the backrest section could be elevated by mechanical hand crank located at the foot-end of the bed.	
4.3	Shall have 4 IV rod receptacles and mosquito net pole receptacles at the 4 corners	
4.4	It shall come with one dual hook anti-corrosive and antirust treated epoxy powder coated or 304 grade stainless steel IV rod.	
4.5	Shall have provisions to fix urinary bag on both sides.	
4.6	It shall mobile on 4 x 200mm robust swivelling castors with non-marking grey tyres and with at least 2 diagonal castors shall have locking/brake mechanism.	
4.7	Bedhead and foot-end panel (head and foot bows) shall be made of either between 4-6 anti-corrosive and antirust treated epoxy powder coated vertical tubular tube of not less than 30mm in diameter or epoxy powder coated steel panel	
4.8	Both bedhead and foot-end panel shall be detachable.	
4.9	The height of the bedhead panel: not less than 1060mm from floor.	
4.10	The height of the foot-end panel: not less than 820mm from floor.	
4.11	Overall approximate dimension: not less than 1980mm length, 910mm width, 600mm height	
4.12	The mattress negotiable with hospital beds having an overall approximate dimension of not less than 1980mm length, 910mm width.	
4.13	It shall be fire retardant antibacterial treated high density approx. 40kg/m3 PU foam mattress.	
4.14	The mattress shall have thickness of at least 100mm.	
4.15	Mattress with two sections shall be designed to bend with the positioning of the bed when the backrest and foot section of the bed are adjusted.	
4.16	The weight capacity of the mattress shall be more than 100kg.	
4.17	**Mattress Cover:**	
	The mattress shall come with a zipped fire retardant antibacterial, antistatic, acid resistance, waterproof and washable vinyl or vinylized nylon cover. It shall be designed to provide ventilating airflow over the patient's skin. The zip shall be a heavy-duty/large toothed synthetic zipper to enable inspection of the inner foam and totally covered by a flap extending over the zip to prevent ingress of fluids into the actual mattress and allow for replacement.	
5	**System Configuration Accessories, spares and consumables**	
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.	
6	**Operating Environment**	
6.1	The system offered shall be designed to store and to operate normally under the conditions. The conditions include Climate, Temperature, Humidity, etc.	
7	**Warranty**	
7.1	Warranty for 2 years.	

7 **Mercury Sphygmomanometer**

No.	Item Specifications	Fill your Specification
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 Requirements**	
2.1	Mercury sphygmomanometer.	
3	**System Configuration**	
3.1	Sphygmomanometer with adult and paediatric size cuffs.	
4	**Technical Specifications**	

No.	Item Specifications	Fill your Specification
4.1	300 mm wide tube	
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 Climate, Temperature,Humidity, etc. for Sudan.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND	
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.	
8	**User Training**	
8.1	Not applicable.	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years from acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	Standard warranty conditions are applicable.	
11	**Installation and Commissioning**	
11.1	Must supply preassembled unit, ready to use.	
12	**Documentation**	
12.1	User's manual in English.	

8 **I.V Stand**

No.	Item Specifications	Fill your Specification
1	**Description of Function**	
1.1	This IV/saline stand is used for hanging various intravenous items such as blood bag, glucose bottle etc.	
2	**Operational Requirements**	
2.1	Epoxy powder coated IV/Saline stand with castors.	
3	**System Configuration**	
3.1	Adjustable IV/saline stand with five legs, with 4 hooks and five swivels castors.	
4	**Technical Specifications**	
4.1	The IV stand shall be made of tubular anti-corrosive and antirust treated epoxy powder coated mild steel, with a 5 pronged base fitted on mobile on swivelling castors of approx. diameter Ø50mm. The castors must be non-rusting and non-marking.	
4.2	The stand should come with stainless steel double IV hook, height adjustable from approximately 1620mm to 2340mm, with a screw knob for height adjustment.	
5	**Operating Environment**	
5.1	The product offered shall be designed to be stored and to operate normally under the conditions. The conditions include Climate, Temperature, Humidity, etc.	
6	**Warranty**	
6.1	Comprehensive warranty for 2 years after acceptance.	

9 **Torch (Diagnostic Penlight)**

No.	Item Specifications	Fill your Specification
1	**Technical Specifications**	
1.1	LED , Xenon lamp or Better for light.	
1.2	Including 2 batteries type AA.	
1.3	Extremely heavy duty resistant casing.	
1.4	Practical metal clip on handle for attaching the light to the physician's coat.	
2	**Accessories, spares and consumables**	
2.1	Not applicable,.	
3	**Operating Environment**	
3.1	The product offered shall be designed to be stored and to operate normally under Climate, Temperature,Humidity, etc. for Sudan.	
4	**Standards and Safety Requirements**	
4.1	Must sub mit ISO 9001 or ISO13485:2003/AC:2007 for Medical Devices AND	
4.2	CE or U SFDA approved product certificate.	
5	**Warranty**	
5.1	Warranty for 2 years after acceptance.	

No.	Item Specifications	Fill your Specification
6	**Maintenance Service during Warranty Period**	
6.1	Standard warranty conditions are applicable.	
7	**Installation and Commissioning**	
7.1	Must supply preassembled unit, ready to use.	

10 **Walking Aid**

No.	Item Specifications	Fill your Specification
1	**Technical Specifications**	
1.1	Standard specifications	
2	**Standards and Safety Requirements**	
2.1	Must sub mit ISO 9001 or ISO13485:2003/AC:2007 for Medical Devices AND	
2.2	CE or USFDA approved product certificate.	
3	**Warranty**	
3.1	Warranty for 2 years after acceptance.	

11 **Finger Pulse Oximeter**

No.	Item Specifications	Fill your Specification
1	**Technical Specifications**	
1.1	Standard specifications	
2	**Standards and Safety Requirements**	
2.1	Must sub mit ISO 9001 or ISO13485:2003/AC:2007 for Medical Devices AND	
2.2	CE or USFDA approved product certificate.	
3	**Warranty**	
3.1	Warranty for 2 years after acceptance.	