

RFQ 26-2024 Specifications			
No	Item	Specification	Fill your Specification
1	Slit Lamp with Table	Light source : LED 5 steps magnification Fundus module (Removable non-mydriatric retinal camera) DSLR camera connecter Photo slitlamp W/integrated Flash Applanation tonometer prisim spear for tonometer Superb optical with mechanical qualities Ruby lens Video moniter Motorized table bright Dust cover Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Suitable UPS Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back- up shall be supplied with the system. All Customer Calibration Tools & Special Calibration tools must be included in the offered price and their cost must be stated in details in a separate file warranty:2years Documentation User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy) Service (Technical / Maintenance) manual in English Should provide 2 sets(hardcopy and soft-copy) List of important spare parts, accessories and consumables with their part numbers and costing. Certificate of calibration and inspection from factory.	
2	Auto Chart Projector	Technical Specifications: Refracting Distance: 2.9 to 6.1 m . Variable Focus Projection distance: 2.9 to 7.1 m . Projection Magnification: 30x (in 5m refraction) . Tilt range of projector: ±15 degrees . Number of charts: minimum of 30 . Chart change over: 1 frame/0.03 sec. Number of masks: Horizontal Line , Vertical Line , Single letters . Mask change over: 1 frame/0.02 sec. Projection lamp- 12V 50w (Halogen Lamp/LED) or beter. Automatic Shut-off . Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. 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. Operating Environment: The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature, Humidity, etc. for Sudan. Standards and Safety Requirements: Must submit ISO13485:2003/AC:2007 for Medical Devices AND CE (93/42 EEC Directives) or USFDA approved product certificate. User Training: Must provide user training (including how to use and maintain the equipment). Warranty: Comprehensive warranty for 2 years. Maintenance Service During Warranty Period During warranty period supplier must ensure corrective/breakdown maintenance whenever required. Documentation: User (Operating) manual in English. Service (Technical / Maintenance) manual in English. List of important spare parts and accessories with their part numbers and costing.	
3	Auto Refraction	1 Description of Function 1.1 Auto refractometer is computerized vision testing Machines used obtain and objective measure the eye's refractive error. This measurement provides the most accurate prescription for corrective lenses. 2 Operational Requirements 2.1 Auto Refractometer with full auto mode. 3 System Configuration 3.1 Auto Ref-Keratometer, complete unit with all standard accessories. 4 Technical Specifications 4.1 Shall have automatic radius measurement. 4.2 Shall have automatic peripheral Measurement. 4.3 It must have adjustable tilt colour LCD monitor. 4.4 Shall have active accommodation relaxation. 4.5 Shall have IOL measuring mode with K1 & K2	

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	4.6	Shall have reliable PD measurement.	
	4.7	Shall have large cylinder measuring range up to 10 D.	
	4.8	Measurement as from 2.3 mm pupillary diameter	
	4.9	In-built printer with paper cutter function.	
	4.1	Refractometry:	
		- Sphere (SPH): -30 to + 2.0 D when VD is set to 12mm.	
		- Cylinder (CYL): 0 to -10 D.	
		- Axis (AX): 1 to 180 degree.	
		- Automatic measurement (release) in the case of correct centering.	
		- 1 to 10 automatic measurements possible.	
	4.11	Radius Measurement:	
		- Surface refraction power 33.75 D-67.5 D in 0.010,120,25 D steps.	
		- Radius 5.0 - 10.0 mm in 0.01 mm steps.	
		- Cylinder size 0-9.0 D (Axis 0deg. to 180deg. in 1deg. steps).	
		- Diameter	
	4.12	Cornea vertex distance: 0 10 12 13.5 15 mm.	
	4.13	Minimum pupillary diameter: 2.3 mm.	
	4.14	Pupillary distance up to 85 mm in 1 mm steps.	
	4.15	Shall have RS232C and video NTSC.	
	5	Accessories, spares and consumables	
	5.1	Accessories:	
		Must come with motorized Table	
	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	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	
	7.1	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	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.	
	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.	
4	Auto Lensometer	Auto -mono and multi focal detection ,LCD touch panel	
		Measurement Ranges:	
		Sphere Power +/- 25 D.	
		Cylinder Power +/- 10 D.	
		Axis 0 to 180°.	
		ADD 0 to 10 D.	
		Prism 0 to 10 Δ.	
		Measurement Mode	
		Cylinder : +/- / -	
		Prism : Rectangular Coordinates / x-y / P-B	
		Lens detection :	
		Auto for single and progressive lenses	
		contact Lens measurement	
		hard /soft contact lens	
		light source	
		green led refractive measurement / UV LED UV measurement	
		SCREEN	
		color touch screen	
		PD measurement	
		50 up to 90 mm	
		Printer and external interface	
		Thermal printer Type and LAN to be included	
		Dust cover	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in	
		Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back- up shall be supplied with the system.	
		All Customer Calibration Tools & Special Calibration tools must be included in the offered price and their cost must be stated in details in a separate file	
		warranty:2years	
		Documentation	

No	Item	Specification	Fill your Specification
		User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy)	
		Service (Technical / Maintenance) manual in English Should provide 2 sets(hardcopy and soft-copy)	
		List of important spare parts, accessories and consumables with their part numbers and costing.	
		Certificate of calibration and inspection from factory.	
5	AB-Scan	<p>15 MHZ B PROBE</p> <p>Focus Dynamic Focus</p> <p>Frame rate : Basic mode 22 frame / sec</p> <p>High sensitive mode :11 frame / sec</p> <p>Minimum number of pages in a movie :380 pages x 2</p> <p>Image display range Standard :42 mm / 52"(at ultrasound velocity = 1550 m/sec)</p> <p>Wide 54 mm / 52"(at ultrasound velocity = 1550 m/sec)</p> <p>Colour scale 256 scale level</p> <p>Scan type Sector scanning</p> <p>Transducer type : Annular array</p> <p>Transducer frequency 15 MHz</p> <p>Frame rate Basic mode :10 frame / sec</p> <p>High sensitive mode 7 frame / sec</p> <p>Maximum number of pages in a movie :100 pages x 2</p> <p>Image display range: 9 mm (W) x 7 mm (D) (at ultrasound velocity = 1550 m/sec)</p> <p>Colour scale :256 scale level</p> <p>Scan type :Linear scanning</p> <p>Transducer type Single</p> <p>Transducer frequency 60 MHz</p> <p>DISPLAY TFT LCD 15", colour touch screen</p> <p>15" TFT Color Touch Screen Operation</p> <p>Scope Mode (Standard: 42 mm, Wide: 54 mm)</p> <p>ROI setting (Micro, Normal, Long, Retrobullbar)</p> <p>B-Axial (Biometry support function)</p> <p>Automated Video Recording (Maximum of 400 images of the 15 MHz B-Probe or maximum of 100 images of the 60 MHz UBM Probe)</p> <p>Zoom (5 steps->100%, 125%, 150%, 200%, 300%)</p> <p>Area,Distance and Angle Calculation</p> <p>R/L Display,Vector Mode-A</p> <p>Dual Display</p> <p>With internal printer</p> <p>Thumbnail Images</p> <p>Group Save Group Export</p> <p>On Screen annotation</p> <p>with additional B probe and specify the cost</p> <p>Dust cover</p> <p>Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Suitable UPS</p> <p>Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back- up shall be supplied with the system.</p> <p>All Customer Calibration Tools & Special Calibration tools must be included in the offered price and their cost must be stated in details in a separate file</p> <p>warranty:2years</p> <p>Documentation</p> <p>User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy)</p> <p>Service (Technical / Maintenance) manual in English Should provide 2 sets(hardcopy and soft-copy)</p> <p>List of important spare parts, accessories and consumables with their part numbers and costing.</p> <p>Certificate of calibration and inspection from factory.</p>	
6	Autoclave 50 L	<p>1 Description of Function</p> <p>1.1 Autoclaves are required for sterilizing an object in high temperature and high pressure steam.</p> <p>2 Operational Requirements</p> <p>2.1 Microprocessor based electrically heated vertical steam sterilizer</p> <p>3 System Configuration</p> <p>3.1 Microprocessor based Autoclave (Vertical Model) with complete accessories.</p> <p>4 Technical Specifications</p> <p>4.1 capacity: approx. 50 L.</p> <p>4.2 Vertical type.</p> <p>4.3 Stainless steel.</p> <p>4.4 Digital controlled temperature and pressure system.</p> <p>4.5 Steam sterilization, up to 134° C</p> <p>4.6 Digital temperature and pressure gauges.</p> <p>4.7 Safety devices : over heat (low water cut-off switch , safety valve and release valve)</p> <p>4.8 Automatic controlled sterilization cycle.</p> <p>4.9 2 modes sterilization (121°c - 134°c)</p> <p>4.10 Exhaust system.</p> <p>4.11 Stainless steel basket.</p> <p>4.12 Double wall case.</p> <p>5 Accessories, spares and consumables</p>	

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	5.1	All standard accessories, consumables and parts required to operate the equipment.	
	5.2	Spare heating element- 1 set	
	5.3	A minimum of two spare lid gaskets	
	6	Operating Environment	
	6.1	The unit shall be capable of operating in ambient temperature of 10°C-45°C and relative humidity of 10-95%	
	6.2	The unit shall be capable of being stored continuously in ambient temperature of -20°C -60°C and relative humidity of 10-95%	
	7	Power supply:	
	7.1	Input power supply: 220/240 V AC , 50Hz single phase schuko plug	
	8	Standards and Safety Requirements	
	8.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND	
	8.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.	
	8.3	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.	
	9	Training	
	9.1	Must provide user & service training.	
	10	Warranty	
	10.1	Comprehensive warranty for 2 years.	
	11	Maintenance Service During Warranty Period	
	11.1	Supplier must ensure planned preventive maintenance (PPM) along with corrective/breakdown maintenance whenever required.	
	12	Documentation	
	12.1	User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy)	
	12.2	Service (Technical / Maintenance) manual in English Should provide 2 sets(hardcopy and soft-copy)	
	12.3	List of important spare parts, accessories and consumables with their part numbers and costing.	
7	TRIAL LENS SET (Adjustable trial frame)		
		Standard Specifications	
		Dust cover	
		warranty:2years	
		Documentation	
		User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy)	
		Certificate of calibration and inspection from factory.	
8	Ophthalmic Surgical Microscope		
		Binocular microscope 5 step Magnification chamber with good fusing imaging facilities, with X-Y movement motorized, floor stand type.	
		Motorized zoom system, zoom ratio 1:6	
		Specify Magnification factor	
		Motorized focus minimum 50 mm with centering control	
		With option of Motorized Biom System compatible with the surgical microscope	
		ILLUMINATION : cold light coaxial illumination by fiber light guide/ LED / halogen light source or better with filters (heat absorbing, cobalt, blue and green) and entgrated co-axial red glow illumination , X-Y coupling	
		Filters: UV barrier filter, filter to reduce blue ratio, filter to reduce Scleral glare, fluorescence filter, Retinal protection device.	
		laser filter protection for both surgeon and assistant	
		Assistant Binocular Microscope: Assistant Microscope to match the focusing of main Microscope.	
		Specify Red reflex illumination field (diameter)	
		Inclined binocular tube 45 deg, Binocular tube up to f=170mm	
		Wide field minimum 10 X to 12.5X individually adjustable	
		Specify Field of view diameter	
		Must have dioptic adjustment of -5.00 to +5.00.	
		Inter-pupillary distance : 55mm to 75mm.	
		Objective Lens: focal length (f' minimum 175+/-25 & above).	
		Working Distance: To be stated for each alternative not less than 150 mm.	
		Smoothly movable arm, smoothly movable head of microscope (focusing mechanism) by foot switch, objective lense f=200mm	
		Motorized Biom System compatible with the surgical microscope includes 60D & 120D aspheric lens & special arm.	
		Arm, base mounted on mobile floor stand with good wheels lock	
		Assistant Binocular Microscope: Assistant Microscope to match the focusing of main Microscope.	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in	
		Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 1 hour back- up shall be supplied with the system.	
		Dust cover	
		warranty:2years	
		All Customer Calibration Tools & Special Calibration tools must be included in the offered price and their cost must be stated in details in a separate file	
		Documentation	
		User manual in English	
		Service manual in English	
		List of important spare parts, accessories and consumables with their part numbers and costing must be attached	
		Certificate of calibration and inspection from factory.	
		All net work conections ,and all data management and export ways	

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9	Infant Transport Incubator with UPS		
		1 Description of Function	
	1.1	Required for transportation of premature babies and neonates and it can be used for long distance transportation.	
		2 Operational Requirements	
	2.1	It shall be self-contained mobile intensive care station including power supply unit and infusion stand.	
		3 System Configuration	
	3.1	Transport Incubator, complete unit with all standard accessories.	
		4 Technical Specifications	
	4.1	Microprocessor controlled, easy access control panel with feather touch switches.	
	4.2	It shall be mounted on collapsible trolley having lockable rust free casters of the size 4 inches dia. or more and with facility to mount two A type Aluminium oxygen cylinders on rack under the Incubator .	
	4.3	Single walled incubators with at least two large pot holes for access. Iris ports for ventilator & other tubings. Bed level at least 80 cm. above ground level. Two shelves cabinet with door.	
	4.4	Mattress to hood distance at least 30 cm.	
	4.5	Air Mode: Adjustable set temperatures between 20 oC to 39 oC. Display of set temperatures with resolution of 0.1 oC . Skin mode adjustable set temperatures between 34 oC to 38 oC . Display of set temperatures with resolution of 0.1 oC .	
	4.6	Alarms of high, low and probe failure for the set air mode up to +2.5 oC and skin mode of + 0.5 oC of temperatures.	
	4.7	Oxygen monitor in incubator hood with display of 21 to 100% Oxygen alarms for high, low and probe failure.	
	4.8	Heart and Oxygen saturation monitor: Fixed, built monitors, dual wavelength probe for Oxygen saturation with digital LED display for Heart rate and Oxygen saturation. Alarms for high and low for Heart Rate, Oxygen saturation and probe failure.	
	4.9	The system must have an internal rechargeable maintenance free battery to ensure continued functioning of the unit for at least 3 hours during transport. It shall have automatic switch circuit for change over from battery to AC and vice versa.	
	4.10	One suction apparatus with negative suction pressure of 5- 120 mm Hg must be provided.	
	4.11	Shall provide IV fluid stand to support two infusion bottles.	
	4.12	One Syringe infusion pump with stand compatible with 10, 20, and 50 ml syringes compatible with available brand of syringes. Range of infusion rate 1to 99 ml / hr.in steps of 0.1ml. Shall have display functions for infusion rates, alarms for occlusions, end of infusion and it shall have internal rechargeable battery.	
	4.13	Overall Dimensions with trolley (approx.):	
		<input type="checkbox"/> Height less than 60".	
		<input type="checkbox"/> Depth less than 30".	
		<input type="checkbox"/> Width 33"-36".	
		<input type="checkbox"/> Weight 90-100 kg or less.	
		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.	
		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 60601-2-50 Medical Electrical Equipment PART 2: Particular Requirements for the Safety of Baby Incubators.	
		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 preventive maintenance 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.	
10	Phototherapy Machine with UPS		
		1 Description of Function	
	1.1	Phototherapy units are used to treat hyperbilirubinemia, a condition characterized by high bilirubin concentrations in the blood. These units are also called: bilirubin lamps, bilirubin lights, fiberoptic phototherapy blankets, neonatal phototherapy units.	
		2 Operational Requirements	
	2.1	It must be LED based single surface phototherapy unit used for clinical management of neonatal	
		3 System Configuration	
	3.1	Phototherapy Unit (LED type), complete unit with all standard accessories.	
		4 Technical Specifications	
	4.1	Single surface, LED phototherapy unit with blue power.	
	4.2	Light Source :	
		<input type="checkbox"/> Blue power LEDs for phototherapy	
	4.3	Wavelength: Blue Light: Peak between 450 and 470nm.	
	4.4	There shall be no UV and no IR radiation.	
	4.5	Phototherapy Intensity Adjustment:	
		<input type="checkbox"/> Intensity at 30 cm: Low level > 20 μW/cm2/nm. High level > 30 μW/cm2/nm.	
		<input type="checkbox"/> Effective area: 250mm round (at 30cm).	
	4.6	Therapy timer: An accurate LCD timer for recording therapy time with reset facility.	
	4.7	Life of LED: Minimum 20,000hours of use.	
	4.8	It must have flexible neck for easy use with Radiant Warmer.	
	4.9	Flexible Mobile Stand:	
		<input type="checkbox"/> Base of Stand: Sturdy mild steel with epoxy powder coated base with casters.	
		<input type="checkbox"/> Approx. 4 inch dia castors with break/locking mechanism.	

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		☐ Easily slides below all standard trolleys.	
		☐ Height: Adjustable from 1,000 to 1,500mm +/- 50mm (from ground).	
		☐ Tilt adjustment: 0° (horizontal) to approx. 40° (both sides).	
4.10		It shall have thick gauge Stainless Steel top of baby tray with foldable transparent acrylic side panels. The baby tray shall have facility for trendelenburg and anti-trendelenburg position.	
4.11		It shall have breakage free Stainless Steel clips and holders for acrylic panels.	
4.12		Shall provide foam / bubble mattress.	
4.14		It shall have X-ray cassette guide facility.	
4.16		It shall have facility to provide phototherapy from underneath also.	
		5 Accessories, spares and consumables	
		5.1 Accessories:	
		☐ Phototherapy eye pads for preterm and term babies: 05 each.	
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.	
		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 60601-2-50 Medical Electrical Equipment PART 2-50: Particular Requirements for the Safety of Infant Phototherapy 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 Installation and Commissioning	
11.1		The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.	
		12 Documentations	
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.	