

مواصفات عطاء توريد أجهزة العيون رقم 1/2021

No	Item	Specification	Fill your Specification
1	<b>Direct ophthalmoscope</b>	<p>Direct ophthalmoscope is an instrument designed to visualize the interior of the eye, with the instrument relatively close to the subject's eye and the observer viewing an upright magnified image.</p> <p>Illumination: LED/Halogen.</p> <p>Working distance: Minimum 300mm</p> <p>Spot size: Minimum 200µm.</p> <p>Ergonomic shape. Instrument fits the orbita comfortably in any position.</p> <p>Soft orbital support. Protects the users' glasses and steadies the instrument.</p> <p>Apertures with separate red-free filter. Suitable for large or small pupils.(wide angle, intermediate , macular, .slit ,glaucoma, fixation cross, red-free filter, blue filter</p> <p>Pupillary distance: Minimum 52 to 74mm</p> <p>The range of lenses from +20D to - 30D</p> <p>Handle should be suitable to be charged with chargeable battery( directly in the mains socket or outlet after unscrewing) and also the handle can be used with dry battery )</p> <p>Wall mounted</p> <p>Dust Cover</p> <p>Operation Manual</p> <p>warranty:2years</p>	
2	<b>Indirect ophthalmoscope</b>	<p>Aperture and Filter Can be "locked" into a desired position.</p> <p>Illumination: LED/Halogen.</p> <p>Adjustment Levers: Also feature a "Friction-Clutch" ("Safety-Clutch") to protect mechanisms from forced adjustment while in the "lock" position.</p> <p>Increased PD Range: up to 74mm.</p> <p>Ultra light flexible headband</p> <p>New Ergonomic design for optimal weight transfer across the surface of the entire headband (no pressure points).</p> <p>New softer, more malleable material. Provides even and comfortable fit of the headband.</p> <p>Calibrated Overband Position ensures optics is in true horizontal position for precise adjustment and alignment.</p> <p>Integrated cables in overband eliminates the usual "cable loop" from instrument to headband.</p> <p>With 1 indirect video ,high resolution full HD camera and easy to store images in pc or laptop</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>Dust Cover</p> <p>warranty:2years</p> <p>All Customer Calibration Tools &amp; Special Calibration tools must be included in the offered price and their cost must be stated in details in a separate file</p> <p><b>Documentation</b></p> <p>User manual in English</p>	

No	Item	Specification	Fill your Specification
		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	
3	<b>Ophthalmic unit with Slit Lamp w/chart projector</b>	Leather Comfortable Chair (back rest ,arm rest ) Electrical Motorized up/down & back/forward with foot switch	
		Sliding table top for one instruments	
		Special holder for trial lens maximum size set	
		Overhead lamp: with halogen bulb	
		Metal plate support for chart projector	
		Adjustable counterbalancing mechanism- for exclusive with arm phoropter Counterbalanced.	
		With illuminated soft light for examination	
		Allows all instrument to be installed in .	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.	
		High arm rotation degree .	
		<b>Slit Lamp</b>	
		Dust cover	
		High level, LED illumination. H OR Z type	
		5 steps magnification control (6x, 19x, 16x, 25x, 40x).	
		comprehensive range of diagnostic filters(yellow, blue, green (red free), heat absorption filter, diffuser,cobalt ).	
		Slit angle: +90 – 90 adjustable in steps continuous.	
		Slit width and length Stepless adjustable: up to 14 mm.	
		Slit width and length Stepless adjustable: up to 14 mm.	
		Diaphragm sizes: 0.2 – 14mm.	
		Rotation: 0-180 degrees.	
		Field of view: 6 to 40mm.	
		Slit tilt: 0-20 degrees.	
		Binocular microscope with standard objective and eyepieces.	
		Movement: base movement (x, y, vertical), adequate chin rest movement	
		Observation can be made through either the right or left eyepiece.	
		with applanation tonometer: Applanation tonometer designed to be mounted on the slit .	
		To be installed in ophthalmic unit	
		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.	
		Dust Cover	

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		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	
		<b>Documentation</b>	
		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 connections ,and all data management and export ways	
4	<b>Ophthalmic unit with digital slit lamp w/chart projector</b>	Leather Comfortable Chair (back rest ,arm rest ) Electrical Motorized up/down & back/forward with foot switch	
		Sliding table top for one instruments	
		Special holder for trial lens maximum size set	
		Overhead lamp: with halogen bulb	
		Metal plate support for chart projector	
		Adjustable counterbalancing mechanism- for exclusive with arm phoropter Counterbalanced.	
		With illuminated soft light for examination	
		Allows all instrument to be installed in .	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.	
		High arm rotation degree .	
		<b>Digital Slit Lamp</b>	
		Dust cover	
		Integral high quality camera chip for optimal image clarity and contrast ,ability. With beam splitter and good resolution	
		5 steps magnification control (6x, 19x, 16x, 25x, 40x).	
		Slit angle: +90 – 90 adjustable in steps continuous.	
		Slit width and length Stepless adjustable: up to 14 mm.	
		Diaphragm sizes: 0.2 – 14mm.	
		Rotation: 0-180 degrees.	
		Field of view: 6 to 40mm.	
		Slit tilt: 0-20 degrees.	
		Binocular microscope with standard objective and eyepieces.	
		Movement: base movement (x, y, vertical), adequate chin rest movement	
		H or Z type configurations.	
		Includes back ground illumination.	
		Brilliant LED illumination and integral yellow filter.	
		comprehensive range of diagnostic filters(yellow, blue, green (red free), heat absorption filter, diffuser,cobalt ).	

No	Item	Specification	Fill your Specification
		Instantaneous Image transfer via fire Wire guarantees live observation in full screen format, ideal for teaching purposes.	
		Includes a database and flexible image processing software,friendly softwarefor all windows version.	
		Demanding endothelial images can be acquired without the requirement for a flash.	
		Screen 21 inch	
		Shall come with Applanation tonometer.	
		To be installed in ophthalmic unit	
		No acquisition delay, as with other digital cameras, ensuring that the image that you see is the image you record.	
		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.	
		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	
		<b>Documentation</b>	
		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	
5	<b>Optical Biometer Machine</b>	Non contact ,automatic IOL calculation	
		SWEPT source technology	
		Measures A scan , Total keratometry,CCT,ACD,WTW,Lens thikness	
		Calculation formula: SRK,HAIGIS,HOLADAY,ALL Barrett Suite .	
		All data interface for for EMR,PMS,HOLLADAY IOLsoftware and phaco optics	
		All net work conections ,and all data management and export ways	
		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.	
		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	
		<b>Documentation</b>	
		User manual in English	

No	Item	Specification	Fill your Specification
		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 connections ,and all data management and export ways	
6	<b>Ophthalmic Surgical Microscope</b>	Binocular microscope , 3 OR 5 step Magnification chamber with good fusing imaging facilities	
		ILLUMINATION : cold light coaxial illumination by fiber light guide/ LED / halogen light source with filters (heat absorbing, cobalt,blue and green )	
		Inclined binocular tube 45 deg.	
		Wide field minimum 10 X to 12.5X individually adjustable	
		Must have dioptric 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	
		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 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.	
		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	
		<b>Documentation</b>	
		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 connections ,and all data management and export ways	
7	<b>Ophthalmic Surgical Microscope Advance</b>	Binocular tube up to f=170mm	
		Inclined binocular tube 45 deg.	
		Must have dioptric adjustment of -5.00 to +5.00.	
		Inter-pupillary distance : 55mm to 75mm.	
		Objective Lens: focal length (f' minimum 175+/-25 & above).	

No	Item	Specification	Fill your Specification
		Working Distance: To be stated for each alternative not less than 150 mm.	
		Objective Lens f=200	
		5-step changer Magnification	
		Focus Motorized	
		illumination :bright LED or halogen light source adjustable and entgrated co-axial red glow illumination ,X-Ycoupling	
		Filters: UV filter, Blue barrier filter, Retinal protection device.	
		All handle with Sterilizing Caps with sterilized trayes	
		Metal Sleeve Handle	
		Foot Switch multi functions up/down-x/y, with up to 3M cable	
		Coobservation tubes	
		Assistant Binocular tube: Assistant tube to match the focusing of main surgion tube	
		Beam Spilter for adaption of Coobservation tube& Video Camera	
		Arm, base mounted on mobile floor stand with good wheels lock	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.	
		Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back-up shall be supplied with the system.	
		Upto 21" LCD Screen for medical application with base& connecting cables.	
		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	
		<b>Documentation</b>	
		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	
8	<b>Surgical Microscope For Retina</b>	Optics with red-reflex	
		Binocular tube 0-180°	
		Wide field minimum 10 X to 12.5X individually adjustable	
		Objective Lens f=200	
		Focus Motorized	
		Wide range of field of view diameter	
		Deep View depth of field management system	
		illumination :bright LED or halogen light source adjustable and entgrated co-axial red glow illumination ,X-Ycoupling	
		Assistant Binocular Microscope: Assistant Microscope to match the focusing of main Microscope.	

No	Item	Specification	Fill your Specification
		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	
		Foot Switch four functions up/down-x/y, with up to 3M cable	
		Coobservation tubes	
		High resolution Video Camera	
		Video objective lens	
		Beam Spilter for adaption of Coobservation tube& Video Camera	
		Upto 21" LCD Screen for medical application with base& connecting cables.	
		All handle with Sterilizing Caps with sterilized trays	
		Motorized Biom System compitable with the surgical microscope includes 60D&128D aspheric lens &Special Try	
		Arm, base mounted on mobile floor stand with good wheels lock	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.	
		Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. 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	
		<b>Documentation</b>	
		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	
9	<b>Phaco Machine</b>	Phaco unit w/trolley , work on venturi & peristaltic pump and shall provide light weight steel hand piece.	
		Ultrasonic mode shall have continuous and pulse mode.	
		dual linear foot switch , programable multifunctional 6 up to 20 different functions w/reflux switch, dust cover	
		Digital LCD panel display of parameters.	
		Bipolar Coagulation: 6 up to 15 watts, foot controlled	
		<b>Phaco mulsification::</b>	
		Ultrasonic tip frequency: up to 60 KHz.	
		<b>Irrigation up to 100 mmHg</b>	
		Phaco power in both linear and pulse mode.up to 100	
		Aspiration: 0-600 mmHg linear vacuum.	
		Anterior Vitrectomy :30 up to 2000 cuts/min.	

No	Item	Specification	Fill your Specification
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.	
		Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back-up shall be supplied with the system.	
		Machine must have good panel display with digital control good audio, memory set up for surgical parameters.	
		motorized IV Pole	
		multi patient cassette ,one cassette for all	
		Sterilization trays	
		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	
		<b>Documentation</b>	
		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	
10	<b>Vitrectomy Machine</b>	vitrectomy unit w/trolley , work on venturi & peristaltic pump and shall provide speed cut rate	
		Ultrasonic mode shall have continuous and pulse mode.	
		dual linear foot switch , programable multifunctional 6 up to 20 different functions w/reflux switch, dust cover	
		Digital LCD panel display of parameters.	
		Bipolar Coagulation: 6 up to 15 watts, foot controlled	
		Irrigation up to 100 mmHg	
		Phaco power in both linear and pulse mode.up to 600	
		Aspiration: 0-600 mmHg linear vacuum.	
		Anterior Vitrectomy :30 up to 2000 cuts/min.	
		Posterior vitrectomy : Cut rate :6000 up to 20000	
		illumination : 3or 2 led source option	
		Air : adjustable air up to 100	
		Oil injection : adjustable up to 6 bar	
		Multifunctional dual foot pedal with linear control	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.	
		Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back-up shall be supplied with the system.	
		Machine must have good panel display with digital control good audio, memory set up for surgical parameters.	
		controlable IV Pole	
		multi patient cassette ,one cassette for all	



No	Item	Specification	Fill your Specification
		Sterilization trays	
		Compressor shall provided not less than 10000 cut /min	
		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	
		<b>Documentation</b>	
		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	
11	<b>Endo LASER</b>	Yag laser source : wave length : 532nm	
		power in tissue up to 1200mW	
		pulse duratio 20ms to continuous	
		Foot switch, dust cover	
		delivary system : ORmicroscope adapter (ziess type,leica type), slit lamp adapter,laser indirect ophthalmoscopes,	
		Laser probes straight,curved,fleible curved ,steerable	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.	
		Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. 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	
		<b>Documentation</b>	
		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	
12	<b>Ophthalmic operation Table</b>	To be changed from chair posion to table position by remote control or foot switch pedal	
		Wheels with 5th directional wheel .with locking	
		height adjustable with foot pedal	
		flodable barriers for patient side	

No	Item	Specification	Fill your Specification
		smooth mobility helps moving from operating room to other purposes	
		noiseless motor, smooth operation	
		adjustable head rest	
		weight lifting capacity : not less than 200kgs	
		steel frame , with washable mattress	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Suitable UPS	
		Dust cover	
		Operation Manual	
		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	
		<b>Documentation</b>	
		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.	
13	<b>Diathermy for Ophthalmic Surgery</b>	Suitable for ophthalmic .	
		Cut, coagulation and cut + coag. modes with pre set blended types and/or according to the operators requirement with adjustable overall output power.	
		Max. output power with in range of ( up to 100 W ) , better for mono-polar cutting or better for bipolar coagulation	
		Output short circuit and open patient circuit protection with alarms indicators.	
		Cutting / coagulation foot switch.	
		Indicator to display the output power.	
		Ability to operate by the probe's switch and/or the foot switch.	
		Available safety measures for the patient and the operator including electro-magnetic noise suppression means shall be stated by the bidder.	
		All attachments and accessories should be supplied (probes, handles, patient plates, foot switch, etc).	
		Compatible diathermy trolley should be supplied with accessories and antistatic castors, drawers, trays, etc.switch.	
		All controls to be color coded and easily identifiable.	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Suitable UPS	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		User manual in English	
		Service manual in English	

No	Item	Specification	Fill your Specification
		List of important spare parts, accessories and consumables with their part numbers and costing must be attached	
		Certificate of calibration and inspection from factory.	
14	<b>Anesthesia Machine</b>	Description of Functions	
		To be used for inducing general anaesthesia to adult and paediatric patients undergoing medical surgery	
		<b>Technical Specifications</b>	
		Should be an anaesthesia machine with ventilator and monitor	
		Should have sturdy steel with anticorrosive powder coating trolley running on four antistatic wheels with brakes and drawers	
		Gas inlet: 3 inlets, O <sub>2</sub> , N <sub>2</sub> O and Air	
		Gas cylinder yokes: O <sub>2</sub> & N <sub>2</sub> O and Air in different connecting configuration	
		Should have O <sub>2</sub> , N <sub>2</sub> O and air pressure gauges	
		<b>Flow meter:</b>	
		It shall come with 6 flow meter columns; 2 flow meter columns for each kind of gas; which 1 column with normal increments and 1 column with small adjustments.	
		The oxygen flow meter shall have adjustment ranges: 1 column approximately from 0 to 1 L/min and the other column approximately from 1 to =>10 L/min	
		The Nitrous oxide flow meter shall have adjustment ranges: 1 column approximately from 0 to 1 L/min and the other column approximately from 1 to =>10 L/min	
		The air flow meter shall have adjustment ranges: 1 column approximately from 0 to 1 L/min and the other column approximately from 1 to =>10 L/min	
		<b>Vaporizer</b>	
		The vaporizers shall be maintenance-free easy-refill	
		The machine shall accommodate two vaporizers with safety mechanism for ensuring engagement of only one vaporizer at a time	
		The vaporizers should be isoflurane and halothane.	
		<b>Gas flow control or Oxygen ratio control</b>	
		The N <sub>2</sub> O and O <sub>2</sub> flow control shall be interlocked that the proportion of O <sub>2</sub> to N <sub>2</sub> O will never fall below a minimum value, i.e. O <sub>2</sub> concentration shall never be less than 25%, to produce a hypoxic breathing mixture.	
		It shall automatically cut off the supply of N <sub>2</sub> O and other gases and activate an alarm if O <sub>2</sub> pressure drops below 28 - 30PSI,	
		Should have oxygen flush capability	
		Should have autoclaveable CO <sub>2</sub> absorbent canister with soda lime.	
		Should come with autoclaveable (at most with steam of 134 degree C) patient circuit for adult and paediatric (two sets for each)	
		<b>Beathing system</b>	
		Canister contains more than 1 kg soda lime	
		Allow change over from open circuit to close circuit	
		Fully autoclaveable.	
		Inbuilt bag vent switch & APL valve	

No	Item	Specification	Fill your Specification
		should have pressure gauges	
		<b>Ventilator</b>	
		Microprocessor based electrically powered and controlled ventilator	
		Ventilation Modes: at least should have Manual Ventilation, Pressure Controlled Ventilation (PCV), Synchronized Intermittent-Mandatory Ventilation (SIMV), Volume Controlled Ventilation (VCV) and Pressure-Support Ventilation (PSV)	
		Tidal Volume: approximately 50 - 1600 ml	
		Inspiratory flow: approximately 5 - 70 L/min	
		Pressure limitation : approximately 10 - < 70 cm H2O	
		PEEP (positive end-expiratory pressure): approximately 0 - 20 cm H2O	
		<b>Monitoring</b>	
		The monitor should show the following:	
		Concentration of O2	
		Expiratory volume and flow	
		High and low airways pressure	
		Pressure high, low or leakage	
		Low gas supply pressure	
		Power failure, low battery, patient disconnection and others	
		<b>Accessories, Spare Parts and Consumables</b>	
		All standard accessories, consumables and parts required to operate the equipment.	
		Silicone breathing circuit for adult and child, 2 complete sets each.	
		Connecting hose with regulator/ flow meter or probe for connection to PIN index oxygen cylinder and BOC type	
		Connecting hose with regulator/ flow meter or probe for connection to N2O cylinder or N2O wall outlet, at least 5 meter length, 1 set	
		Connecting hose with regulator/ flow meter or probe for connection to air cylinder or wall outlet, at least 5 meter length, 1 set	
		Silicone test lung adult and child size, 1 set each	
		Silicone rubber anaesthesia face mask adult and paediatric size, 1 pc each	
		O2 sensor, 1 set	
		Built-in backup battery for at least 90 min. should be included	
		<b>Power supply</b>	
		Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Suitable UPS	
		<b>Environmental factors</b>	
		The unit shall be capable of being stored continuously in ambient temperature of 0 -55deg C and relative humidity of 15-95%	
		The unit shall be capable of operating in ambient temperature of 20-50 deg C and relative humidity of 80%	
		<b>Standards and safety</b>	
		Should be FDA or CE approved product certificate.	
		<b>User Training</b>	
		Must provide operating and service trainings	

No	Item	Specification	Fill your Specification
		<b>Warranty</b>	
		Comprehensive warranty for two years.	
		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	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		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.	
15	<b>Cataract &amp; ILO set W/sterilization box</b>	Barraquer Wire Speculum, Large	
		Suture Tying Forceps, Curved	
		Mc Pherson Forceps, Angled	
		Mc Pherson Corneal Forceps,1x2 Teeth	
		Superior Rectus Forceps	
		Wills Hospital Utility Forceps	
		Castroviejo Corneal Scissors,Universal	
		Vannas Capsulotomy Scissors,Angled	
		Westcott Stitch Scissors	
		Barraquer Needle Holder,Micro JawsW/O Lock	
		Hartman Mosquito Forceps,Straight	
		Hartman Mosquito Forceps,Curved	
		Rycrift Air Injection Cannula	
		Simcoe I/A Cannula,Direct	
		Bard-Parker Handle	
		Agarwal Phaco Chopper	
		Sinsky II Lens Manipulating Hook	
		Lewis Lens loop, Small	
		Smith Lens Expressor	
		Sterilization Box Stainless	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy)	
		Certificate of calibration and inspection from factory.	
16	<b>LID set W/sterilization box</b>	Lancaster Eye Speculum	
		Desmarres Lid Retractor,Size 0	

No	Item	Specification	Fill your Specification
		Jaeger Lid Plate	
		Fixation Hook, 2.0x1.5mm,Small	
		Graefe Muscle Hook,Size 3	
		Meyerhoefer Chalazion Curette,Size 2	
		St.Martin Suturing Forceps,1x2 Teeth	
		Fixation Forceps,1x2 Teeth	
		Beer Cilia Forceps	
		Berke Ptosis Forceps,20mm	
		Snellen Entropium Forceps,Left,Small	
		Snellen Entropium Forceps,Right,Small	
		Ayer Chalazion Forceps	
		Lambert Chalazion Forceps	
		Mc Pherson Tying Forceps,Long Handle	
		Hartman Mosquito Forceps,Straight	
		Hartman Mosquito Forceps,Curved	
		Westcott Stitch Scissors	
		Eye Scissors,Curved,4 1/2" Length	
		Stevens Tenotomy Scissors,Curved	
		Kalt Needle Holder	
		Barraquer N.Holder,Short Model,M.Jaws W/O Lock	
		Bard Parker Handle #3	
		Castroviejo Caliper,Straight	
		Fixation Forceps,2x3 Teeth,Angular	
		Corneal Scissors Stainless	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy)	
		Certificate of calibration and inspection from factory.	
17	<b>Vetrctomy surgical set (Retina Surgical set)</b>	ILM peel forceps 23G (4 pcs)	
		Serratedforceps 23G (2 pcs)	
		Soft tipped back flush 23G (4 pcs)	
		Active flush need 23G (2 pcs)	
		Retina sweeper 23G (3pcs)	
		Retina scissors 23G (2 pcs)	
		Membrain forceps 23G (2 pcs)	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy)	

No	Item	Specification	Fill your Specification
		Certificate of calibration and inspection from factory.	
18	<b>Flash autoclave</b>	Should be a table top autoclave for Dental and ophthalmic applications.	
		Two automatic programmes approx. at 2.2 bar at 134°C and 1.1 bar at 121°C	
		The equipment should have automatic pressure control switch / automatic water control device to ensure that the equipment does not run dry.	
		Should have flash cycle for rapid sterilization and should have an option for liquid cycle.	
		Should be equipped with powerful vacuum pump to eject air pockets from the chamber at the beginning and at the end of the cycle.	
		Should have rapid warm up facility. Built in reservoir to store water required to produce steam, and used water separately, for easy decantation.	
		The system should be equipped with required safety features.	
		The door should have double locking safety feature and should open only with atmospheric pressure in the chamber.	
		Should have automatic cut-off to prevent overheating and cut-off for insufficient water, the machine should not start without sufficient water.	
		Should have a minimum chamber capacity of 19 litres/cycle or above.	
		Should have pressure display and temperature display.	
		Following accessories should be supplied along with the equipment:	
		• 1 set of 3 removable shelves – stainless steel.	
		• 1 instrument basket – stainless steel.	
		• 1 set of 2 Drum for sterilization – stainless steel.	
		• 1 Roll of sterilization indicator.	
		• 1 box paper sheet 100 nos crepe for sterilization packs.	
		• 2 spare silicone gaskets.	
		• 1 sets of spare fuses.	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Suitable UPS	
		Should have safety certificate CE or FDA	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		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.	
19	<b>Heat Sealing Machine</b>	The unit should have manual heat adjustments	
		System should be suitable for the sealing of surgical instruments in paper envelopes.	
		Should be microprocessor controlled.	
		Smooth easy cleaning surfaces.	
		Quick sealing time with sealing width of 12mm.	

No	Item	Specification	Fill your Specification
		It should be a compact table top system.	
		Ergonomic handling with anti fatigue movement.	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		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.	
20	<b>Ultrasonic Cleaner</b>	Provision of digital timer and digital display	
		Should be able to remove the dirt and debris from the crevices of instruments.	
		Should have a SS 304 grade sturdy, non corrosive tank and casing.	
		Should have a tank capacity of approximately 8 L.	
		Should be supplied with standard accessories including SS 304 grade mesh bucket & lid.	
		Should have 37-42 KHz transducer ( Heating capacity 200 Watts )	
		Should have heating facility upto 70 degree.	
		Low noise Ultrasonic machines (noise level less than to 80 dB)	
		Should have Electronic controller cum indicator with time set feature for heating and sonication, LED display also showing remaining time of cleaning.	
		Should have Water drain facility	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Suitable UPS	
		Should be provided with a suitable voltage stabilizer of appropriate ratings	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		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.	
21	<b>Cryo system</b>	For cataract , retina detachment,glaucoma and intravitreal surgery	
		Completely non electric portable w/N2O gas	
		Foot controlled	
		Quick defrocting and quick freesing	
		Cryo probes: cataract,retina,glaucoma , intravitreal,hammer headed ,spatulated probes	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.	



No	Item	Specification	Fill your Specification
		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	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		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.	
22	<b>Slit lamp Basic with Table</b>	Light source : LED	
		2 to 3 steps magnification	
		Fundus module (Removable non-mydratic 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	
		motoorize 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	
		<b>Documentation</b>	
		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.	

No	Item	Specification	Fill your Specification
23	<b>Anterior &amp; Posterior Operation Microscope</b>	<p>Video monitor 22" LCD display Resolution: 1,680 x 1,050 : • Near-daylight color temperature • 50,000 hour lifetime at 50 % light intensity • HaMode filter • 25 % gray filter For all light sources: • Blue blocking filter • Optional: Fluorescence filter Slit lamp: Slit widths: 0.2 mm, 2 mm, 3 mm, 4 mm Slit height: 12 mm XY Coupling: Travel range: max. 61 mm x 61 mm Automatic centering at the touch of a button Stand: Maximum permissible weight load of the spring arm: When the surgical microscope is attached to the arm (without tube, eyepiece or objective lens) and the XY coupling is also attached, a maximum of 9 kg of additional accessories can be attached to the spring arm</p>	
		Teaching eye piece	
		Red reflex (Stereo coaxial)	
		Objective (working distance)	
		Fundus viewing system (contact lens)Biom	
		Motorized zoom system with apochromatic lens, zoom ratio 1:6	
		Magnification factor = 0.4 x-2.4 x	
		Focusing: electric / motorized, focus range: 70 mm	
		Objective lens: f = 200 mm (optionally also f = 175 mm or f = 225 mm with support ring)	
		Binocular tube: Invertertube E (optionally also Invertertube, 180° swivel tube,	
		f = 170 mm, inclined tube, f = 170 mm)	
		Wide-angle eyepiece 10 x (optionally also 12.5 x) :	
		Light source: SCI: Coaxial and full-field illumination (patent pending) Fiber-optic illumination Superlux® Eye	
		Xenon short arc reflector lamp with HaMode filter Backup lamp in lamp housing, can be slid into position manually	
		LED fiber-optic illumination	
		• Near-daylight color temperature • • HaMode filter	
		50,000 hour lifetime at 50 % light intensity	
		25 % gray filter For all light sources	
		Blue blocking filter	
		Optional: Fluorescence filter	
		Slit lamp:	
		Slit widths: 0.2 mm, 2 mm, 3 mm, 4 mm	
		Slit height: 12 mm	
		XY Coupling:	
		Travel range: max. 61 mm x 61 mm	
		Automatic centering at the touch of a button	
		Stand:	
		Maximum permissible weight load of the spring arm:	
		When the surgical microscope is attached to the arm (without tube, eyepiece or objective lens)	
		and the XY coupling is also attached, a maximum of 9 kg of additional accessories can be attached to the spring arm	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Suitable UPS	

No	Item	Specification	Fill your Specification
		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	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		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.	
24	<b>YAG Laser</b>	Energy : 0.3 to 10 mj per pulse	
		Continuously (variable)	
		Accessories: Photo switch, five –position magnification changer, Beam splitter, co observation tube, 35mm camera adapter, video camera adapter, capsulotomy and irridotomy laser lenses.	
		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	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		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.	
25	<b>Contact lenses Trail set</b>	Soft . Hard. Rose K2 .Trail Frame	
		warranty:2years	
		Dust cover	
		<b>Documentation</b>	
		User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy)	
		Certificate of calibration and inspection from factory.	
26	<b>Low vision instruments</b>	Prisms. Vertical . Horizontal. Synoptophore	
		Operation Manual	
		warranty:2years	
		Dust cover	

No	Item	Specification	Fill your Specification
		<b>Documentation</b>	
		User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy)	
		Certificate of calibration and inspection from factory.	
27	<b>Perkins Tonometer</b>	Standard	
		warranty:2years	
		Dust cover	
		<b>Documentation</b>	
		User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy)	
		Certificate of calibration and inspection from factory.	
28	<b>Pulse Oxemeter</b>	Description of Function	
		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.	
		<b>Operational Requirements</b>	
		Suitable for all types of patient range, adult, paediatric and infant and shall operate on AC mains as well as from internal rechargeable battery.	
		<b>System Configuration</b>	
		Pulse Oxymeter, complete unit with all standard accessories.	
		<b>Technical Specifications</b>	
		It shall be portable unit.	
		Display- LCD, backlight illuminated.	
		Parameters and waveform displayed- SpO2, pulse rate, system status, plethysmogram, menus for user settings.	
		SPO2 range: 70-100 %.	
		Accuracy of SPO2: 3%.	
		Pulse rate range must be 30-240 bpm.	
		Audio-visual alarms: High/low SpO2 and pulse rate, sensor off, sensor failure, low battery.	
		Shall have alarm override facility.	
		It must be suitable to operate in the presence of potentially flammable anaesthetic gases, and it shall not cause fire or explosion during operations.	
		RS 232C interface for data communication.	
		Shall have integrated printer.	
		Inbuilt rechargeable battery and shall have battery back-up for at least 4 hours. Battery charger along with AC adaptor to be provided if integrated charger is not there.	
		<b>Accessories, spares and consumables</b>	
		<b>Accessories:</b>	
		<input type="checkbox"/> Reusable adult SpO2 sensor with cable: 02 nos.	
		<input type="checkbox"/> Reusable paediatric SpO2 sensors: 01 no.	
		<input type="checkbox"/> Reusable infant SpO2 sensor: 01 no.	
		<input type="checkbox"/> Dust cover	

No	Item	Specification	Fill your Specification
		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.	
		<b>Operating Environment</b>	
		The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature, Humidity, etc. for Sudan.	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Suitable UPS	
		<b>Standards and Safety Requirements</b>	
		Must submit ISO13485:2003/AC:2007 for Medical Devices AND	
		CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.	
		Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.	
		<b>User Training</b>	
		Must provide user training (including how to use and maintain the equipment).	
		<b>Warranty</b>	
		Comprehensive warranty for 2 years after acceptance.	
		<b>Maintenance Service During Warranty Period</b>	
		During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.	
		<b>Documentation</b>	
		User (Operating) manual in English.	
		Service (Technical / Maintenance) manual in English.	
		List of important spare parts and accessories with their part numbers and costing.	
		Certificate of calibration and inspection from factory.	
29	<b>AB-Scan</b>	15 MHZ B PROBE	
		Focus Dynamic Focus	
		Frame rate : Basic mode 22 frame / sec	
		High sensitive mode :11 frame / sec	
		Minimum number of pages in a movie: 380 pages x 2	
		Image display range Standard :42 mm / 52°(at ultrasound velocity = 1550 m/sec)	
		Wide 54 mm / 52°(at ultrasound velocity = 1550 m/sec)	
		Colour scale 256 scale level	
		Scan type Sector scanning	
		Transducer type : Annular array	
		Transducer frequency 15 MHz	
		Frame rate Basic mode :10 frame / sec	
		High sensitive mode 7 frame / sec	
		Maximum number of pages in a movie :100 pages x 2	
		Image display range: 9 mm (W) x 7 mm (D) (at ultrasound velocity = 1550 m/sec)	
		Colour scale :256 scale level	
		Scan type :Linear scanning	

No	Item	Specification	Fill your Specification
		Transducer type Single	
		Transducer frequency 60 MHz	
		DISPLAY TFT LCD 15", colour touch screen	
		15" TFT Color Touch Screen Operation	
		Scope Mode (Standard: 42 mm, Wide: 54 mm)	
		ROI setting (Micro, Normal, Long, Retrobullbar)	
		B-Axial (Biometry support function)	
		Automated Video Recording (Maximum of 400 images of the 15 MHz B-Probe or maximum of 100 images of the 60 MHz UBM Probe)	
		Zoom (5 steps->100%, 125%, 150%, 200%, 300%)	
		Area,Distance and Angle Calculation	
		R/L Display,Vector Mode-A	
		Dual Display	
		Thumbnail Images	
		Group Save Group Export	
		On Screen annotation	
		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	
		<b>Documentation</b>	
		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.	
30	<b>Specular Microscope</b>	auto alignment and auto measurment ,auto shot , auto traking	
		integrated non contact pachymetry 300 up to 1000 measurment	
		multi measurment area	
		intergrated database	
		accuracy +/-10µm	
		L-count , Trace ,core and Dark area Method	
		able to count a rage between ( 100 - 400 ) cells	
		display color LCD touch screen	
		All net work conections ,and all data management and export ways w ith yhermal printer	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.	

No	Item	Specification	Fill your Specification
		Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back-up shall be supplied with the system.	
		Documentation	
		User manual in English	
		Service manual in English	
		List of important spare parts, accessories and consumables with their part numbers and costing.	
		Certificate of calibration and inspection from factory.	
		All net work conections ,and all data management and export ways	
		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	
		<b>Documentation</b>	
		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.	
31	<b>OPHTHALMIC PERIMETER</b>		
		<b>Test specifications :</b>	
		Maximum temporal range of degrees) , with moving fixation point	
		Stimulus duration 0.1 up to 9 second	
		Visual field testing distance up to 30 cm	
		different Background illumination LED (green ,white , red )	
		<b>Threshold test library :</b>	
		different testing 24-2, 30-2, 10-2, Macula	
		60-4, Nasal step	
		<b>Suprathreshold test library :</b>	
		C40, C76, C80,C64, C-Armaly ,Peripheral test patterns	
		<b>Suprathreshold test modes :</b>	
		Age corrected,threshold related, Single intensity	
		Specialty test library	
		Social Security Disability, monocular, binocular .	
		Esterman monocular, binocular, superior 36, 64 .	
		Kinetic testing .can be auto	
		Custom Kinetic testing,Custom Static testing test editor	
		Fixation control	

No	Item	Specification	Fill your Specification
		Heijl-Krakau blind spot monitor.	
		Video eye monitor.	
		Gaze / Head tracking.	
		Vertex monitoring.	
		<b>Stimulus</b>	
		White-on-white	
		Red- or blue-on-white	
		Blue-on-yellow (SWAP)	
		General testing features	
		Stimulus sizes : 1 up V	
		Foveal threshold testing	
		Automatic pupil measurement	
		<b>Liquid Trial Lens (AutoTLC).</b>	
		Rel EYE eye review	
		Software features	
		Single Field Analysis (SFA),Glaucoma Hemifield Test (GHT)	
		Visual Field Index (VFI), Guided Progression Analysis (GPA)	
		Serial field overview,Networking, DICOM Connectivity	
		Data storage, retrieval and analysis	
		Hard drive , USB ,CD-R/W drive ,printer to be compatible with windows ,user defrined test storage	
		Operator interface	
		Display LCD ,touch screen ,Keyboard	
		<b>Electrical requirements</b>	
		Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Suitable UPS	
		Operation Manual	
		<b>Standards</b>	
		Meets UL, CSA and CE standards	
		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	
		<b>Documentation</b>	
		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.	



No	Item	Specification	Fill your Specification
32	<b>Auto Lensometer</b>	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.	
		Measuremen Mode	
		Cylinder : + /± / -	
		Prism : Rectangular Coordinates / x-y / P-B	
		Lens detection :	
		Auto for single and progressive lenses	
		contact Lens measurmnt	
		hard /soft contact lense	
		light source	
		green led refractive measurment / UV LED UV mrasurment	
		SCREEN	
		color touch screen	
		PD measurment	
		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 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	
		<b>Documentation</b>	
		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.	
33	<b>Corneal Topography</b>		
	Features	fast and easy acquisition (to be taken withen seconds)	
		reports corneal maps , comparision maps , contact lens , height map,foric IOL, Screen shoot	
		zernike analysis ,pupillometry (scotopic and photopic )(flourescein + meibiomian gland imaging	
	All views:	axial curvature, tangential, curvature, elevation , irregularity,	
		videoke ratoscopic(ring ,scotopic,photopic),keratometry,refractive power,	

No	Item	Specification	Fill your Specification
		imaging allows to collect more data and differential maps to track progress	
		corneal wavefront , image simulation ,point spread function,	
		modulation transfer function	
	Work distance	work distance up to 80 mm	
		touch screen operation	
		flexible out put of report resolution +/-0,01 D 1 micron	
		with Cdisplay	
	Illumination	infrared LED mination source no visible	
	Computer and software	windows X P professional with internal storage w printer	
		2 optional software (I corneal analysis ,I contact lens )	
		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	
		<b>Documentation</b>	
		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.	
34	<b>Slit Lamp Advance with Table</b>		
		Dust cover	
		High level, LED illumination. H OR Z type	
		5 steps magnification control (6x, 19x, 16x, 25x, 40x).	
		comprehensive range of diagnostic filters(yellow, blue, green (red free), heat absorption filter, diffuser,cobalt ).	
		Slit angle: +90 – 90 adjustable in steps continuous.	
		Slit width and length Stepless adjustable: up to 14 mm.	
		Slit width and length Stepless adjustable: up to 14 mm.	
		Diaphragm sizes: 0.2 – 14mm.	
		Rotation: 0-180 degrees.	
		Field of view: 6 to 40mm.	
		Binocular microscope with standard objective and eyepieces.	
		Movement: base movement (x, y, vertical), adequate chin rest movement	
		Observation can be made through either the right or left eyepiece.	
		with motorized table	
		Dust cover	

No	Item	Specification	Fill your Specification
		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	
		<b>Documentation</b>	
		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.	
35	<b>Portable Slit Lamp</b>		
		Type Binocular Hand held Biomicroscope Slit Lamp	
		Small and light weight	
		Filters Red free, Blue, Heat absorption ,Grey cobalt, blue	
		Slit angle +/- 30 or +/- 90°	
		Fixation targets LED system,high lumination with long life hours	
		Power supply unit Switch mode, (220V) +/- 10% multi-plug	
		Power supply output (7.4 v or 12v DC 2.5A) with long life rechargeable battery up to 6 or more hours	
		Biomicroscope	
		Magnification variable size	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		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.	
36	<b>Surgical Microscope with Teaching piece</b>		
		Binocular microscope , 3 OR 5 step Magnification chamber with good focusing imaging facilities	
		ILLUMINATION : cold light coaxial illumination by fiber light guide/ LED / halogen light source with filters (heat absorbing, cobalt,blue and green )	
		Inclined binocular tube 45 deg.	
		Wide field minimum 10 X to 12.5X individually adjustable	
		Must have dioptric adjustment of -5.00 to +5.00.	
		Inter-pupillary distance : 55mm to 75mm.	

No	Item	Specification	Fill your Specification
		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	
		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 length.	
		Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back-up shall be supplied with the system.	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		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.	
37	<b>Cross Linking Machine</b>		
		UV light Source LED UV-A range.	
		high level of safty , come with one or more diod and spcial optics,and to aviod the hot spots and the endothelium protected	
		flexibility ,can choose between 3 or more energy levels	
		can be portable with a table mount	
		Working distance up 54 mm.	
		System for collimation with special focs on effectiveness	
		Tele camera integrated 1/4" camera.	
		W / Monitor Display .	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	
		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.	
38	<b>TRIAL LENS SET (Adjustable trial frame)</b>		
		Standard Specifications	
		Dust cover	
		warranty:2years	
		<b>Documentation</b>	

No	Item	Specification	Fill your Specification
		User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy)	
		Certificate of calibration and inspection from factory.	
39	<b>Auto Refraction</b>		
	<b>1 Description of Function</b>		
	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.	
	<b>2 Operational Requirements</b>		
	2.1	Auto Refractometer with full auto mode.	
	<b>3 System Configuration</b>		
	3.1	Auto Ref-Keratometer, complete unit with all standard accessories.	
	<b>4 Technical Specifications</b>		
	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	
	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	<b>Refractometry:</b>	
		<input type="checkbox"/> Sphere (SPH): -30 to + 22D when VD is set to 12mm.	
		<input type="checkbox"/> Cylinder (CYL):0 to +/- 10D.	
		<input type="checkbox"/> Axis (AX): 1 to 180 degree.	
		<input type="checkbox"/> Automatic measurement (release) in the case of correct centering.	
		<input type="checkbox"/> 1 to 10 automatic measurements possible.	
	4.11	<b>Radius Measurement:</b>	
		<input type="checkbox"/> Surface refraction power 33.75 D-67.5 D in 0.01/0.12/0.25 D steps.	
		<input type="checkbox"/> Radius 5.0 - 10.0 mm in 0.01 mm steps.	
		<input type="checkbox"/> Cylinder size 0-9.0 D (Axis 0deg. to 180deg. in 1deg. steps).	
		<input type="checkbox"/> Dust cover	
	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.	
	<b>5 Accessories, spares and consumables</b>		
	5.1	<b>Accessories:</b>	
		<input type="checkbox"/> Trolley: 01 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.	
	<b>6 Operating Environment</b>		

No	Item	Specification	Fill your Specification
	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	<b>Standards and Safety Requirements</b>	
	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	<b>User Training</b>	
	8.1	Must provide user training (including how to use and maintain the equipment).	
	9	<b>Warranty</b>	
	9.1	Comprehensive warranty for 2 years.	
	10	<b>Maintenance Service During Warranty Period</b>	
	10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
	11	<b>Documentation</b>	
	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.	