

**SPECIALIZED HEALTH CARE AND
MEDICAL EDUCATION
DEPARTMENT**

GOVERNMENT OF THE PUNJAB



Health Department

**PRODUCT VOCABULARY
MEDICAL STORE (PVMS) OF
OPHTHALMOLOGY EQUIPMENT**

Volume - I , 2016

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Clinical Specialty	Ophthalmology
Generic Name	OPERATING MICROSCOPE (BASIC OPERATING MICROSCOPE WITH STEPPED MAGNIFICATION)
Clinical Purpose	Surgery
TECHNICAL SPECIFICATIONS	
<p>Floor mounted stand, microscope body with 5 step magnification changer (manual or motorized) Built in coaxial illumination, motorized fine focusing and manual/motorized coarse focusing Objective: f=175 or f=200. Binocular tube inclined at fixed angle. Eyepiece 10x or 12.5x with diopter adjustment. Sterilization protective caps for all drive knobs. Illumination with controllable intensity with halogen or LED. With or without fiber optics. Water proof foot control pannel Upgradable with accessories.</p>	
ACCESSORIES:	
<p>Six spare halogen bulbs (in case of halogen illumination). Dust cover</p>	

Clinical Specialty	Ophthalmology
Generic Name	OPERATING MICROSCOPE (BASIC OPERATING MICROSCOPE WITH ZOOM)
Clinical Purpose	Surgery
TECHNICAL SPECIFICATIONS	
<p>Floor stand mount microscope body with zoom (ratio 1:5 or better). Linear/Continuous zooming XY coupling Builtin coaxial illumination with red reflex. Motorized fine focusing and manual or motorized coarse focusing Objective f=175mm/ f=200 mm Binocular tube: inclined at a fixed angle Eyepiece: 10 X or 12.5X with dioptic adjustment Halogen/LED illumination with controllable intensity with/without fiber optic cable Water proof foot control panel. Sterilizeable protective caps for all drive knobs</p>	
ACCESSORIES:	
<p>06 spare halogen lamps (in case of halogen illumination). Dust cover.</p>	

Clinical Specialty	Ophthalmology
Generic Name	OPERATING MICROSCOPE (TEACHING OPERATING MICROSCOPE)
Clinical Purpose	Surgery
TECHNICAL SPECIFICATIONS	
<p>Floor mounted stand, microscopic body with linear motorized zoom (1:5 or better), Built in coaxial illumination, motorized fine focusing, coarse focusing (Manual or Motorized). Objective: f=200. Motorized XY coupling. Binocular tube inclinable at various angles Eyepiece: 10x or 12.5x with dioptic adjustment. Fully apochromatically corrected optics with high light transmission. Sterilization protective caps for all drive knob 03 sets. Halogen illumination with controllable intensity / Light Emitting Diode, with or without fiber optic cable. Water proof foot control panel. Up gradable with accessories. Adjustable speed for focus, zoom and XY. Binocular stereoscopic assistant's attachment with inclination CCTV attachment including adapter, 3 CCD or CMOS Camera with beam splitter. Digital recording system/USB recording with hard drive. 20" or better LCD or LED monitor (In case of Medical grade) / 30" or better LCD or LED monitor (In case of non medical grade) (i.e to specify). Retinal vision system with attachment. Including (120°, 90°, and Macular lens)</p>	
ACCESSORIES:	
Dust cover. 06 spare bulbs (in case of halogen illumination).	

Clinical Specialty	Ophthalmology
Generic Name	OPERATING MICROSCOPE (TEACHING OPERATING MICROSCOPE WITH ELECTROMAGNETIC BRAKES)
Clinical Purpose	Surgery
TECHNICAL SPECIFICATIONS	
<p>Floor mounted stand, microscopic body with linear motorized zoom (1:5 or better), Built in coaxial illumination, motorized fine focusing, coarse focusing (Manual or Motorized). Electromagnetic brakes Objective: f=200. Motorized XY coupling. Binocular tube inclinable at various angles Eyepiece: 10x or 12.5x with dioptic adjustment. Fully apochromatically corrected optics with high light transmission. Sterilization protective caps for all drive knob 03 sets. Halogen illumination with controllable intensity / Light Emitting Diode, with or without fiber optic cable. Water proof foot control panel. Up gradable with accessories. Adjustable speed for focus, zoom and XY. Binocular stereoscopic assistant's attachment with inclination CCTV attachment including adapter, 3 CCD or CMOS Camera with or without beam splitter. Digital recording system/USB recording with hard drive. 20" or better LCD or LED monitor (In case of Medical grade) / 30" or better LCD or LED monitor (In case of non medical grade) (i.e to specify). Retinal vision system with attachment. Including (120°, 90°, and Macular lens)</p>	
ACCESSORIES:	
Dust cover. 06 spare bulbs (in case of halogen illumination).	

Clinical Specialty	Ophthalmology
Generic Name	CORNEAL ANTERIOR AND POSTERIOR TOPOGRAPHY SYSTEM
Clinical Purpose	Diagnostic for corneal diseases
TECHNICAL SPECIFICATIONS	
<p>Topographical keratoconus detection Topography and elevation maps of the anterior and posterior corneal surface Pachymetry maps. Refractive maps Iris image and horizontal white to white measurement Comparison and differential analysis. Scheimpflug/Slit scan/placido based Computer system originally supplied by manufacturer</p>	
ACCESSORIES:	
<p>Color Laser printer with one extra toner set With original motorized table/Imported from Europe/Japan/USA.</p>	

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Clinical Specialty	Ophthalmology
Generic Name	OPTICAL COHERENCE TOMOGRAPHY (OCT)
Clinical Purpose	Diagnostic. Retinal diseases
TECHNICAL SPECIFICATIONS	
<p>Scan modes : Confocal/LSO /SLO/ live OCT fundus / fundus image/swept source Scan speed : Min 27,000 A-Scan / sec or more Including Optic Nerve Head Analysis, Macula Anterior Segment : With Anterior Segment Module Computer : Originally Supplied by the manufacturer.</p>	
ACCESSORIES:	
<p>Color laser printer with one extra toner set With original motorized table/Imported from Europe/Japan/USA.</p>	

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Clinical Specialty	Ophthalmology
Generic Name	A&B SCAN WITH BIOMETRY
Clinical Purpose	Diagnostic. Retinal diseases and intraocular lens power calculation
TECHNICAL SPECIFICATIONS	
<p>Digital Memory and image freezing. A&B modes with control vector and biometric ruler with computer to calculate IOL power. LCD /TFT monitor alphanumeric or analog display of overall gain. Near field and dynamic setting. Depth of examination 40mm & 60mm. In B mode scanning angle 40° or more. 10 MHz or better B Probe. 10 MHz or better biometry probe.</p>	
ACCESSORIES:	
With compatible laser printer and one extra toner.	

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Clinical Specialty	Ophthalmology
Generic Name	B SCAN
Clinical Purpose	Diagnostic. Retinal diseases
TECHNICAL SPECIFICATIONS	
<p>Digital Memory and image freezing. LCD /TFT monitor alphanumeric or analog display of overall gain. Near field and dynamic setting. Depth of examination 40mm & 60mm. In B mode scanning angle 40° or more. 10 MHz or better B Probe. Gray scale 256 or better.</p>	
ACCESSORIES:	
With compatible laser printer.	

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Clinical Specialty	Ophthalmology
Generic Name	BIOMETER (A-SCAN)
Clinical Purpose	Diagnostic for IOL power calculation
TECHNICAL SPECIFICATIONS	
<p>Ultrasonic bio-meter for manual or automatic freezing system via foot pedal when valid measurement is detected.</p> <p>Measurement of axial length, ACD and lens thickness, features measurement of 5 or more reading with adjustable gates.</p> <p>Standard deviation of multiple scans, fully digitized display of real time echograms.</p> <p>Solid probe with fixation light.</p> <p>Audio feedback for probe alignment.</p> <p>With standard formulae.</p>	
ACCESSORIES:	
Compatible laser printer for all data.	

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Clinical Specialty	Ophthalmology
Generic Name	OPHTHALMIC DIODE PUMPED SOLID STATE WITH ENDO LASER TECHNOLOGY
Clinical Purpose	Therapeutic. Retinal treatment
TECHNICAL SPECIFICATIONS	
<p>Ophthalmic Diode Pumped Solid State Frequency Doubled LASER Photocoagulation with 532nm output. Wave length: 532nm Diode Pumped Frequency Doubled Solid State. Power at tissue up to: 1W or better. Pulse Duration: 0.05sec to 1sec or better. Repeat interval: 3 interval selection or better. Cooling: Thermoelectric / Air cooled. With foot switch. Slit lamp adaptation with spot size 50 to 500 µm (par focal range) or better. Standard halogen slit lamp on original stand. Standard filter and Micromanipulator. LASER application lenses (One for Macular grid, one Standard PRP and one wide field PRP)</p>	
ACCESSORIES:	
Standard Accessories With original motorized table/Imported from Europe/Japan/USA.	
OPTIONAL:	
Indirect ophthalmoscope laser delivery system Endolaser probes gauge and quantity to be decided by end user	

Clinical Specialty	Ophthalmology
Generic Name	DIODE LASER
Clinical Purpose	Therapeutic.
TECHNICAL SPECIFICATIONS	
<p>Consisting of main console with power supply. Treatment wavelength : 805 / 810nm Power : 1W or better Aiming beam: adjustable Spot size : Variable Pulse duration : 0.01 sec. to 0.5 sec. Cooling : Air Foot switch. With standard accessories including Cyclophotocoagulation probe/ (G probe).</p>	
ACCESSORIES:	
With original motorized table/Imported from Europe/Japan/USA.	
OPTIONAL:	
Endolaser probes gauge and quantity to be specified by enduser.	

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Clinical Specialty	Ophthalmology
Generic Name	OPHTHALMIC YAG LASER
Clinical Purpose	Therapeutic
TECHNICAL SPECIFICATIONS	
<p>Q-Switch Nd- YAG Laser. Solid state Laser Wave length: 1064nm. Laser power: 8-10 mJ Pulsed Length: 2 to 4 nsec. Aiming Beam: He Ne / Diode. Cooling : Air Spot size: Less than 20 microns Power: 220V, 50 Hz.</p>	
ACCESSORIES:	
With original motorized table/Imported from Europe/Japan/USA.	

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Clinical Specialty	Ophthalmology
Generic Name	OPHTHALMIC MULTI-SPOT SOLID STATE PHOTOCOAGULATOR (PATTERN LASER)
Clinical Purpose	Therapeutic, Retinal treatment
TECHNICAL SPECIFICATIONS	
<p>Wave length: 532nm/577nm Power at tissue up to: 1 W or better. Pulse Duration: 0.1 sec to 1sec or better Cooling: Thermoelectric / Air cooled With foot switch Spot size: 100 to 400 µm or better Single spot mode: single, repeat Patterns: Square, circle, arc, line, single spot Standard slit lamp on original stand. Standard filter Laser application lenses – One macular grid, One standard PRP and one wide field lens</p>	
ACCESSORIES:	
With original motorized table/Imported from Europe/Japan/USA.	
OPTIONAL:	
Endoprobe Indirect laser delivery system	

Clinical Specialty	Ophthalmology
Generic Name	DIGITAL FUNDUS CAMERA (VARIABLE ANGLE) (DIGITAL RETINAL IMAGING SYSTEM)
Clinical Purpose	Diagnostic. Retina
TECHNICAL SPECIFICATIONS	
<p>Digital Fundus Camera (variable Angle) Variable Angle: Max 50° or better. Focusing System: Fine focusing and Coarse focusing. Tilting Facility provided both horizontal and vertical. Optimum working distance: 35 mm onward. Provided with range of examiner's dioptric compensation. Facility provided for fundus fluorescein angiography along with set of two standard filters. Light source for observation: Halogen Lamp and for flash Xenon bulb. Flash intensity: 300W or better. Fixation light and internal fixation target Power: 220V, 50Hz AC.</p>	
ACCESSORIES:	
<p>Compatible Printer. With original motorized table/Imported from Europe/Japan/USA.</p>	

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Clinical Specialty	Ophthalmology
Generic Name	AUTOMATED PERIMETER / VISUAL FIELD ANALYZER
Clinical Purpose	Diagnostic. Optic nerve diseases/Neurological diseases
TECHNICAL SPECIFICATIONS	
<p>Perimeter able to perform detailed examination of visual field from screening to threshold testing.</p> <p>Multi stage software program.</p> <p>Accurate examination with central 80° or better.</p> <p>Program: Screening test, threshold and macula.</p> <p>Constant patient monitoring through CCD / CMOS camera.</p> <p>Defect level indicator inform the examiner the status of the field of vision with every stimulus.</p> <p>Direct projection optics technology with variable stimulus intensity and size as per Goldman standard.</p> <p>Comprehensive printout facility through conventional compatible printer.</p> <p>Descriptive report provided with clear statistical assessment of the field data Mounted on height adjustable motorized table (original).</p> <p>Complete system upgradeable to computer patient data management system and possibility of software up gradation.</p>	
ACCESSORIES:	
With original motorized table/Imported from Europe/Japan/USA.	

Clinical Specialty	Ophthalmology
Generic Name	OPHTHALMIC PHACOEMULSIFICATION UNIT
Clinical Purpose	Therapeutic. Cataract surgery
TECHNICAL SPECIFICATIONS	
<p>Main console with surgeon setting programming. Phaco modulation choice of pulse and burst mode. Vacuum 0-500 mmHg or better Provision for 2.2 & 2.8 mm tips. Programmable foot pedal. Peristaltic pump. Irrigation/ Aspiration and phaco emulsification hand pieces I/A collection cassette or bag (Quantity 3) I/A test chamber (Quantity3) Irrigation sleeves (Quantity3) Phaco needle 30 deg bevel round (Quantity 3) and Bend tip (Quantity 3). Reusable anterior vitrectomy cutter (Quantity3) Phaco hand piece (Quantity 2) metal luer lock with sterilization box</p>	
ACCESSORIES:	
<p>With Original trolley Dust cover</p>	

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Clinical Specialty	Ophthalmology
Generic Name	POSTERIOR VITRECTOMY UNIT (VENTURI)
Clinical Purpose	Surgery. Retina.

TECHNICAL SPECIFICATIONS

Vitrectomy cutter type: Pneumatically Driven 20G, 23G, 25G/27G Compatibility disposable or auto clavable
Cutting Rate: Range Min 4000 cuts per minute or better.
Actuating Medium: Pressurized Air from external source.
Control: Dual linear system foot switch & screen.
Diathermy: Bipolar 20G, 23G, 25G/27G compatibility. (Auto clavable or Disposable).
Fluidics: Vacuum up to 500mmhg or better.
Cassette: Disposable.
Tubing set: Auto-clavable /Disposable
Pump Type: Venturi and Peristaltic
Scissors & Forceps: Compatible.
Start up Accessories Kit.
Illumination type: Min two independent light sources or converter compatible.
Illumination bulb type: Xenon or LED.
Tamponade: Oil injection module, extraction module, air tamponade
Phaco Emulsification Hand piece 4 crystal or better. (Quantity 2)
Fragmatome: Intravitreal fragmentation compatible.
With original trolley and motorized bottle height control.
Electric power: 200 – 240V, 50Hz AC,

ACCESSORIES:

Pneumatic or motor driven guillotine cutter reusable
Tubing set.
Bipolar cable, Bipolar forceps, Bipolar eraser, Endo diathermy probe.
Infusion cannula 2.5mm, 4.0mm, 6.0mm
Extrusion hand piece 20G,23, 25/27 G
Micro vitrectomy scissors.
Micro vitrectomy forceps.
Sclera plugs 20G, 23
Sclera plug forceps.
Posterior vitrectomy cutters 20G, 23, 25/27 G
Tubing set for fluid-gas exchange
Original instrument stand

Clinical Specialty	Ophthalmology
Generic Name	SLIT LAMP BIOMICROSCOPE WITH DIGITAL IMAGING SYSTEM
Clinical Purpose	Diagnostic for examination of the eye and teaching of students simultaneously.
TECHNICAL SPECIFICATIONS	
<p>Binocular tube with vertical type eye width adjustment. Illumination LED or Halogen. Eyepieces with dioptic adjustment 10X to 16X any one pair. Magnification range variable from 10x to 35x (5 steps or zoom). Slit length: variable. Tilt mechanism: 20° or better. Slit image rotation: 0 to 180°. Filters: Standard filters With hanging type applanation tonometer. with extra prism and calibration kit Including original digital camera with adapter. PC for reporting: Core i5, 4GB RAM, 1TB hard disk or better, USB port. 19' LCD Chin-rest papers.</p>	
ACCESSORIES:	
<p>With original motorized table/Imported from Europe/Japan/USA. Dust cover Chin rest papers Breath shield With extra 12 lamp only for Halogen illumination Slit lamp.</p>	

Clinical Specialty	Ophthalmology
Generic Name	SLIT LAMP BIOMICROSCOPE
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
<p>Binocular tube with vertical type and eye width adjustment. Illumination LED or Halogen. Eyepieces with dioptic adjustment 10x. Slit length: variable. Tilt mechanism. Slit image rotation: 0 to 180°. Filters: Standard. With hanging type applanation tonometer with one extra prism and calibration kit.</p>	
ACCESSORIES:	
<p>With original motorized table/Imported from Europe/Japan/USA. Dust cover. Plastic breath-shield. Chin-rest papers. With extra 12 lamp only for halogen illumination Slit Lamp.</p>	

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Clinical Specialty	Ophthalmology
Generic Name	APPLANATION TONOMETER
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
Hanging type / Goldman type. With one extra prism, with calibration kit.	

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Clinical Specialty	Ophthalmology
Generic Name	OPHTHALMOSCOPE & RETINOSCOPE SET
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
<p>Standard illumination, aperture dial contains small aperture, standard aperture, concentric scale and slit aperture. Corrective power range: +20 to -30D or better. Control for streak width and streak rotation, streak revolves 360°. Head rest to prevent operator's spectacles from getting scratched. Separate handles with rechargeable batteries for Retinoscope & ophthalmoscope. Rechargeable handles with dual desk charger/wall mounted.</p>	
ACCESSORIES:	
<p>3 spare bulbs for Ophthalmoscope. 3 spare bulbs for Retinoscope. Carrying case</p>	

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Clinical Specialty	Ophthalmology
Generic Name	OPHTHALMOSCOPE
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
<p>Standard illumination, aperture dial contains small aperture, standard aperture, concentric scale and slit aperture. Corrective power range: +20 to -30D or better</p>	
<p>ACCESSORIES: Rechargeable handle with charger & batteries. 3 spare bulbs. Carrying case</p>	

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Clinical Specialty	Ophthalmology
Generic Name	RETINOSCOPE
Clinical Purpose	Diagnostic. To determine the refractive status of the eye.
TECHNICAL SPECIFICATIONS	
Standard illumination, Control for streak width and streak rotation, streak revolves 360°. Head rest to prevent operator's spectacles from getting scratched.	
ACCESSORIES: 3 spare bulbs. Carrying case Rechargeable handle with charger & batteries.	

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Clinical Specialty	Ophthalmology
Generic Name	REFRACTION BOX / TRIAL LENS SET
Clinical Purpose	Diagnostic. To determine the refractive status of the eye.
TECHNICAL SPECIFICATIONS	
<p>Sphere: $\pm 0.12D$ to $\pm 20.00D$. Cylinder : $\pm 0.12D$ to $\pm 6.00D$. Prisms: 1 to 10D With unbreakable light weight anodized aluminum / Plastic mounts and standard accessories in carrying case.</p>	

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Clinical Specialty	Ophthalmology
Generic Name	UNIVERSAL TRIAL FRAME
Clinical Purpose	Diagnostic. To determine the refractive status of the eye.
TECHNICAL SPECIFICATIONS	
Universal trial frame.	

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Clinical Specialty	Ophthalmology
Generic Name	FOCIMETER / LENSOMETER (MANUAL)
Clinical Purpose	Diagnostic. To determine the power of lenses.
TECHNICAL SPECIFICATIONS	
<p>Type: ocular internal reading with eye piece. Target : Pinhole corona. Vertex power range: 0 to $\pm 25D$. Steps : 0.25D or better. Cylinder axis : 0 to 180o . Prismatic power range : 5 prism D. Electricity: 220V, 50Hz AC, or battery operated.</p>	
ACCESSORIES:	
With one spare bulb (only for halogen illumination).	

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Clinical Specialty	Ophthalmology
Generic Name	JACKSON CROSS CYLINDER
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
±0.5 & ± 0.25D (pair)	

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Clinical Specialty	Ophthalmology
Generic Name	INDIRECT OPHTHALMOSCOPE
Clinical Purpose	Diagnostic/Examination of retina.
TECHNICAL SPECIFICATIONS	
<p>Head mounted (adjustable). Illumination LED or Halogen. Pupillary distance & size adjustable. Output voltage: variable voltage power supply. Filters: Red free, Cobalt blue, Teaching mirror. Scleral depressor, detachment chart and carrying case.</p>	
ACCESSORIES:	
<p>With 06 spare bulbs only for halogen illumination ophthalmoscope. 20 D lens and 28 D lens</p>	
OPTIONAL:	
<p>Cordless</p>	

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Clinical Specialty	Ophthalmology
Generic Name	AUTO REFRACTOMETER WITH KERATOMETER
Clinical Purpose	Diagnostic. To determine the refractive status of the eye and power of cornea.
TECHNICAL SPECIFICATIONS	
<p>With auto measurement & printout with standard accessories. Manual or motorized chin rest movement. Measuring range: Spherical: $\pm 17D$ or better. Cylinder: $\pm 6 D$ or better. Axis: 1 to 180°. Pupil distance: Max 85mm (increment 1mm). Display: digital on TV or LCD monitor with printer. Electric power: 220-240V AC, 50Hz.</p>	
ACCESSORIES:	
<p>With 6 paper roll, dust cover and cleaning kit. On locally made motorized table.</p>	

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Clinical Specialty	Ophthalmology
Generic Name	KERATOMETER (MANUAL)
Clinical Purpose	Diagnostic. To determine the power of cornea.
TECHNICAL SPECIFICATIONS	
<p>Corneal radius of curvature 6.6mm to 9.2mm or better. Corneal refractive power ranging from 36.5D to 51D or better. Axis of corneal astigmatism 0 to 180. Javal/Shiotz/Sutcliffe/Internal reading</p>	
ACCESSORIES:	
<p>Dust cover Local made motorized table.</p>	

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Clinical Specialty	Ophthalmology
Generic Name	PNEUMATIC TONOMETER
Clinical Purpose	Diagnostic. To determine intraocular pressure.
TECHNICAL SPECIFICATIONS	
Non contact with measurable range 5 to 50 mmHg or better in 1mmHg step.	
ACCESSORIES: With standard accessories, safety locks and built in printer. With locally made motorized table.	

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Clinical Specialty	Ophthalmology
Generic Name	DIAGNOSTIC LENSES
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
68, 78, 90, super field, 3 mirror, indentation gonio lens or any other required by end user.	

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Clinical Specialty	Ophthalmology
Generic Name	LASER APPLICATION LENSES
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
End user to specify	

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Clinical Specialty	Ophthalmology
Generic Name	PERKINS TYPE HANDHELD TONOMETER
Clinical Purpose	Diagnostic. For measurement of intraocular pressure in children.
TECHNICAL SPECIFICATIONS	
<p>Applanation tonometer for IOP. Hand held type. Double prism interchangeable. Compact light weight. Built in illumination. Scale range of 1 to 60 mmHg. Direct reading on dial scale.</p>	
<p>ACCESSORIES: With two prisms and two calibration weights. Complete in case. Dry battery cell operated.</p>	

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Clinical Specialty	Ophthalmology
Generic Name	COLOUR VISIONTESTING CHART
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
<p>Ishihara type. The test to consist of 24 plates or more to be used to test for congenital colour blindness. Each plate to present a design consisting of numerals and winding lines formed by coloured dots with a background of coloured dots, the plates to be numbered and to be supplied with a protective carton and an instruction book.</p>	

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Clinical Specialty	Ophthalmology
Generic Name	EXOPHTHALMOMETER
Clinical Purpose	Diagnostic. To check protrusion of eye.
TECHNICAL SPECIFICATIONS	
Hertel type exophthalmometer to have a scale to measure the distance between the lateral canthi and a scale on either side to measure the protrusion of each eye.	

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Clinical Specialty	Ophthalmology
Generic Name	MADDOX ROD
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
Franceschetti Phoria test/Maddox. Franceschetti Maddox rod	

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Clinical Specialty	Ophthalmology
Generic Name	ORTHOPTIC SET
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
To be specified by user	

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Clinical Specialty	Ophthalmology
Generic Name	PRISMS SET LOOSE
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
0.5, 1, 2, 3, 4, 5, 6 7, 8, 9, 10, 12, 14, 16, 18, 20, 25,30, 35, 40, 45, 50D, red filter. To be supplied in a case	

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Clinical Specialty	Ophthalmology
Generic Name	PRISM BAR
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
Vertical and horizontal	

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Clinical Specialty	Ophthalmology
Generic Name	BJERRUM SCREEN 2M
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
<p>Screen to be made of best quality lack velour cloth. To be supplied on a spring roller so it may be retracted when not in use. To be supplied complete with Traquair targets for use with the screen in red-green and blue-white discs and a long handle all in a case.</p>	

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Clinical Specialty	Ophthalmology
Generic Name	HESS SCREEN ELECTRIC WITH CHIN REST
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
Unit to consist of a screen, which incorporates the original Hess pattern. To be supplied with Diplopia goggles, a torch and then by using these in association with the illuminated screen Pattern, eye dissociation may be diagnosed.	

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Clinical Specialty	Ophthalmology
Generic Name	STEREO TEST WIRT FLY
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
Frisby stereo test.	
ACCESSORIES: To be supplied with stereo test screener	

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Clinical Specialty	Ophthalmology
Generic Name	MADDOX WING
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
Hand held wing test used for testing for the detection and measurement of heterophoria. Metal construction with arrow and scale.	

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Clinical Specialty	Ophthalmology
Generic Name	VISION TESTING BOX FOUR SIDED WALL MOUNTED (SNELLENS)
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
<p>Testing box to be wall mounted, to be supplied with the following panels,</p> <ul style="list-style-type: none"> 1 English alphabet 1 illiterate "E", 1 Urdu alphabet and 1 K pictures <p>To be manually controlled</p>	

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Clinical Specialty	Ophthalmology
Generic Name	CHART PROJECTOR
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
With 20 charts or better including masks Pictures for children Number and letters with cordless remote control	
ACCESSORIES:	
Screen with 01 spare bulb	

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Clinical Specialty	Ophthalmology
Generic Name	LCD/LED VISION CHART
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
19 inch or better Vision charts, Contrast sensitivity charts, color vision chart, pediatric vision charts	

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Clinical Specialty	Ophthalmology
Generic Name	NON CONTACT/OPTICAL BIOMETER
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
<p>Non contact measurements Precise axial length values along the visual axis, independent of pupil size Measures myopes, aphakes, pseudophakes and silicone-filled eyes Automatic right / left eye recognition Axial length measurement Keratometry/Corneal radius Anterior chamber depth Formulae for IOL calculation: SRK-II, SRK-T, Holladay, Hoffer Q, Haigis Data export to CD-RW / USB flash drive</p>	
ACCESSORIES:	
With original motorized table/Imported from Europe/Japan/USA.	

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Clinical Specialty	Ophthalmology
Generic Name	NON MYDRIATIC FUNDUS CAMERA:
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
Type: Non Mydriatic. Picture angle: 45 degree. Working distance: 30 mm or above. Minimum Pupil Diameter: 4mm or better Camera: Provided by the Manufacturer. Display: LCD	
ACCESSORIES:	
With original motorized table/Imported from Europe/Japan/USA.	

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Clinical Specialty	Ophthalmology
Generic Name	HANDHELD SLIT LAMP
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
With stereo microscope Magnification: 10X and 16X Variable slit Standard filters Power supply unit	
ACCESSORIES:	
With rechargeable battery pack Complete with carrying case	

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Clinical Specialty	Ophthalmology
Generic Name	ULTRASONIC PACHYMETRY
Clinical Purpose	Diagnostic. To determine thickness of cornea.
TECHNICAL SPECIFICATIONS	
Providing corneal thickness measurements Featuring freeze frame Microprocessor controlled electronics Audible beep on proper positioning Corneal thickness averaging based on multiple measurements	
ACCESSORIES:	
Solid probe Printer	

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Clinical Specialty	Ophthalmology
Generic Name	DIGITAL LENSMETER
Clinical Purpose	Diagnostic. For measurement of intraocular pressure.
TECHNICAL SPECIFICATIONS	
Type: Auto Display on LCD Vertex power range: 0 to +/-25D Step 0.25D Cylindrical axis: 0 to 180° Prismatic power range: 9 prism D or better Electrically 220V, 50Hz	

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Clinical Specialty	Ophthalmology
Generic Name	HAND HELD TONOMETER (TONOPEN TYPE)
Clinical Purpose	Therapeutic. Used in retinal surgery.
TECHNICAL SPECIFICATIONS	
with measurable pressure range 7 to 50mm Hg or better and	
ACCESSORIES: Standard Accessories	

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Clinical Specialty	Ophthalmology
Generic Name	CRYOSURGICAL UNIT
Clinical Purpose	Therapeutic/Surgery of Eye
TECHNICAL SPECIFICATIONS	
<p>Console with foot switch Pressure regulator Pressure gauge Temperature Display Non-electric defrost On/off pedal switch Can be used on CO₂ or nitrous oxide gas Filter And attachments such as connecting hose and reducer Retina and Glaucoma probes with tubing.</p>	

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Clinical Specialty	Ophthalmology
Generic Name	LOUPES WITH LIGHT
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
2.5 x and above	

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Clinical Specialty	Ophthalmology
Generic Name	HAND HELD AUTO REFRACTOMETER WITH KERATOMETER
Clinical Purpose	Diagnostic. To determine the refractive error of the eye and power.
TECHNICAL SPECIFICATIONS	
<p>With auto measurement & printout with standard accessories.</p> <p>Measuring range:</p> <p>Spherical: $\pm 17D$ or better.</p> <p>Cylinder: $\pm 6 D$ or better.</p> <p>Axis: 1 to 180°.</p> <p>Display: LCD monitor</p> <p>MEASUREMENT OF RADIUS OF CURVATURE</p> <p>Radius of curvature 5.00 to 11.00 mm (in 0.01mm increment)</p> <p>Corneal astigmatism in 0.25D increment</p> <p>Cylinder Axis 1° to 180°</p> <p>Electric power: 220-240V AC, 50Hz.</p> <p>Rechargeable battery workstation</p>	

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Clinical Specialty	Ophthalmology
Generic Name	SPECULAR MICROSCOPE
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
Acquisition mode:	Non-contact, automatic
Picture size:	0.25 mm x 0.50 mm or better
Measurement accuracy:	±10 µm
LCD screen:	8.4" or better
User interface:	Touch-screen
Voltage supply:	230V-240V ac ±10% / 50 Hz, 60 Hz
ACCESSORIES:	
With printer and Local made motorized table.	

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Clinical Specialty	Ophthalmology
Generic Name	CONTRAST SENSITIVITY CHARTS
Clinical Purpose	Diagnostic/Examination of Eye
TECHNICAL SPECIFICATIONS	
<p>Cardiff Pediatric Contrast Sensitivity Test covers 12 contrast levels from 2.17 to 100</p> <p>Preferential Looking Test Hiding Heidi testing varying levels of 1.25%, 2.5%, 5%, 10%, 25% and 100%.</p> <p>Pediatric and Adult Near Contrast Test Books testing 20/400 to 20/10 in 17 increments</p> <p>Low contrast flip charts various age groups</p> <p>Illuminated low vision test charts</p>	

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Clinical Specialty	Ophthalmology
Generic Name	INTRAOPERATIVE OCT
Clinical Purpose	Retinal Surgery
TECHNICAL SPECIFICATIONS	
Spectral domain intraoperative OCT, User specified	

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