

Hamdard Institute of Medical Science & Research Associated
Hakeem Abdul Hameed Centenary Hospital,
Jamia Hamdard, New Delhi-110062

Short Term Tender for the Supply of Various Equipment for Department of
Ophthalmology

Hakeem Abdul Hameed Centenary Hospital, HIMSR, Jamia Hamdard invites bids from Original manufacturer, distributors, authorized dealers/ partners, companies /firms/agencies for supply of various equipment for the department of ophthalmology. Those who are in the similar business for the last two years and providing the same service to Central /State Govt. /Reputed Private Hospitals or autonomous bodies may send their bids both technical and price in sealed envelopes separately along with compliance statement as per the specification attached in annexure.

The interested Companies /Firms /Agencies may send their bid complete in all respect according to “Schedule of Requirement” mentioned below:

<u>Description</u>	<u>Schedule</u>
Closing Date & Time for receipt of Tender	27-11-2017 till 2:00 pm

Hamdard Institute of Medical Science & Research Associated
Hakeem Abdul Hameed Centenary Hospital,
Jamia Hamdard, New Delhi-110062

GENERAL INSTRUCTIONS TO TENDERERS

1. Eligibility of bidder: - This invitation of bids is open to reputed foreign, Indian manufacturer or their authorized dealers /sole selling agents/stockiest authorized by the manufacturer to quote on their behalf for this tender.
2. The sealed envelopes are to be deposited in the office of The Medical Superintendent, HAH Centenary Hospital, Block A (bids sent by courier will not be entertained).
3. Bids should be put in the envelope containing Technical Bid and Price Bid separately labelled failing which the tender shall be rejected forthwith.
4. The purchaser, through the above process of tender scrutiny and tender evaluation will determine to its satisfaction whether the tenderer, who's tender has been determined as the lowest evaluated responsive tender is eligible, qualified and capable in all respects to perform the contract satisfactory.
5. HAH Centenary Hospital reserves the right to amend or withdraw any of the terms and condition contained in the tender document or to reject any or all tenders without giving any notice or assigning any reason.
6. Vendor may quote the CMC/AMC rates to be taken into consideration along with the quotes.

ANNEXURE
Technical Specifications

Sl. No.	Particulars/Specifications																										
1.	<p style="text-align: center;">ADVANCE 4TH GENERATION PHACO MACHINE</p> <table border="1"> <tr> <td style="text-align: center;">1</td> <td>Phaco power 0-100% (longitudinal & torsional technology)</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Phaco Vacuum Level: 0-700mmHg (Vacuum pressure sensor)</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Pump Flow Rate 10 to 60 cc per min</td> </tr> <tr> <td style="text-align: center;">4</td> <td>Ultrasound delivery should be available in continuous, micro pulse and burst mode - without generating significant heat.</td> </tr> <tr> <td style="text-align: center;">5</td> <td>For effective cold phaco it should have software for adjustable duty cycle.</td> </tr> <tr> <td style="text-align: center;">6</td> <td>Advanced fluidics with sensor system for vacuum and irrigation. (preferably active fluidics)</td> </tr> <tr> <td style="text-align: center;">7</td> <td>Digital pulse pump with vertically designed fluidics panel, vacuum sensitive proportional fluid venting.</td> </tr> <tr> <td style="text-align: center;">8</td> <td>IA vacuum level 0-500 mm Hg. Pump Flow rate 10-40cc/min.</td> </tr> <tr> <td style="text-align: center;">9</td> <td>Flat panel color display screen 13-21 inches.</td> </tr> <tr> <td style="text-align: center;">10</td> <td>Computer microprocessors-Intel chipset for medical applications.</td> </tr> <tr> <td style="text-align: center;">11</td> <td>Simple to service and upgrade, customized surgeons programs, programmable power pole with automatic programmed adjustment of bottle height during each procedural phase.</td> </tr> <tr> <td style="text-align: center;">12</td> <td>Advanced technology multifunctional foot switch,</td> </tr> <tr> <td style="text-align: center;">13</td> <td>Ant Vitrectomy attachment should be available more than 2500 cuts/minute.</td> </tr> </table>	1	Phaco power 0-100% (longitudinal & torsional technology)	2	Phaco Vacuum Level: 0-700mmHg (Vacuum pressure sensor)	3	Pump Flow Rate 10 to 60 cc per min	4	Ultrasound delivery should be available in continuous, micro pulse and burst mode - without generating significant heat.	5	For effective cold phaco it should have software for adjustable duty cycle.	6	Advanced fluidics with sensor system for vacuum and irrigation. (preferably active fluidics)	7	Digital pulse pump with vertically designed fluidics panel, vacuum sensitive proportional fluid venting.	8	IA vacuum level 0-500 mm Hg. Pump Flow rate 10-40cc/min.	9	Flat panel color display screen 13-21 inches.	10	Computer microprocessors-Intel chipset for medical applications.	11	Simple to service and upgrade, customized surgeons programs, programmable power pole with automatic programmed adjustment of bottle height during each procedural phase.	12	Advanced technology multifunctional foot switch,	13	Ant Vitrectomy attachment should be available more than 2500 cuts/minute.
1	Phaco power 0-100% (longitudinal & torsional technology)																										
2	Phaco Vacuum Level: 0-700mmHg (Vacuum pressure sensor)																										
3	Pump Flow Rate 10 to 60 cc per min																										
4	Ultrasound delivery should be available in continuous, micro pulse and burst mode - without generating significant heat.																										
5	For effective cold phaco it should have software for adjustable duty cycle.																										
6	Advanced fluidics with sensor system for vacuum and irrigation. (preferably active fluidics)																										
7	Digital pulse pump with vertically designed fluidics panel, vacuum sensitive proportional fluid venting.																										
8	IA vacuum level 0-500 mm Hg. Pump Flow rate 10-40cc/min.																										
9	Flat panel color display screen 13-21 inches.																										
10	Computer microprocessors-Intel chipset for medical applications.																										
11	Simple to service and upgrade, customized surgeons programs, programmable power pole with automatic programmed adjustment of bottle height during each procedural phase.																										
12	Advanced technology multifunctional foot switch,																										
13	Ant Vitrectomy attachment should be available more than 2500 cuts/minute.																										
2.	<p style="text-align: center;">OPHTHALMIC OPERATING MICROSCOPE</p> <table border="1"> <tr> <td style="text-align: center;">1</td> <td>Compact microscope body with high quality apochromatic Optics with 1:6 zoom ratio, Retina Protection Device and contrast enhancement aperture.</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Inclinable 180 Deg. Binocular tube with 12.5 X magnification eye pieces</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Objective with 200mm focal length for convenient working distance</td> </tr> <tr> <td style="text-align: center;">4</td> <td>+2 Deg. Retro illumination with continuous fading mechanism of coaxial illumination from 2 Deg. to 2+6 Deg.</td> </tr> <tr> <td style="text-align: center;">5</td> <td>Integrated slit illumination system with horizontal and vertical moving facility.</td> </tr> <tr> <td style="text-align: center;">6</td> <td>Integrated Depth of Focus mechanism for improved depth of focus during surgery.</td> </tr> <tr> <td style="text-align: center;">7</td> <td>Motorized foot controlled X-Y coupling with automatic re-centering and X-Y inversion facility.</td> </tr> </table>	1	Compact microscope body with high quality apochromatic Optics with 1:6 zoom ratio, Retina Protection Device and contrast enhancement aperture.	2	Inclinable 180 Deg. Binocular tube with 12.5 X magnification eye pieces	3	Objective with 200mm focal length for convenient working distance	4	+2 Deg. Retro illumination with continuous fading mechanism of coaxial illumination from 2 Deg. to 2+6 Deg.	5	Integrated slit illumination system with horizontal and vertical moving facility.	6	Integrated Depth of Focus mechanism for improved depth of focus during surgery.	7	Motorized foot controlled X-Y coupling with automatic re-centering and X-Y inversion facility.												
1	Compact microscope body with high quality apochromatic Optics with 1:6 zoom ratio, Retina Protection Device and contrast enhancement aperture.																										
2	Inclinable 180 Deg. Binocular tube with 12.5 X magnification eye pieces																										
3	Objective with 200mm focal length for convenient working distance																										
4	+2 Deg. Retro illumination with continuous fading mechanism of coaxial illumination from 2 Deg. to 2+6 Deg.																										
5	Integrated slit illumination system with horizontal and vertical moving facility.																										
6	Integrated Depth of Focus mechanism for improved depth of focus during surgery.																										
7	Motorized foot controlled X-Y coupling with automatic re-centering and X-Y inversion facility.																										

	<table border="1"> <tr> <td data-bbox="443 195 518 276">8</td> <td data-bbox="518 195 1287 276">Motorized foot controlled Zoom and focus with recentring of focussing position thru foot control.</td> </tr> <tr> <td data-bbox="443 276 518 361">9</td> <td data-bbox="518 276 1287 361">High quality programmable floor stand with magnetic breaks and clutches for easy positioning through handles and suspension arm.</td> </tr> <tr> <td data-bbox="443 361 518 476">10</td> <td data-bbox="518 361 1287 476">Stand should have programming facility for setting the speed of XY, Zoom and focus with storage facility of initial setting for multiple users.</td> </tr> <tr> <td data-bbox="443 476 518 561">11</td> <td data-bbox="518 476 1287 561">Stand should have cold light fiber Optic Illumination with two illumination bulb with semi automatic changeover facility.</td> </tr> <tr> <td data-bbox="443 561 518 645">12</td> <td data-bbox="518 561 1287 645">Independent integrated binocular assistant microscope with 5 Step magnification changer and focussing.</td> </tr> <tr> <td data-bbox="443 645 518 729">13</td> <td data-bbox="518 645 1287 729">3CCD Digital camera attachment and digital video recording facility with imported high quality video trolley with isolating transformer.</td> </tr> </table>	8	Motorized foot controlled Zoom and focus with recentring of focussing position thru foot control.	9	High quality programmable floor stand with magnetic breaks and clutches for easy positioning through handles and suspension arm.	10	Stand should have programming facility for setting the speed of XY, Zoom and focus with storage facility of initial setting for multiple users.	11	Stand should have cold light fiber Optic Illumination with two illumination bulb with semi automatic changeover facility.	12	Independent integrated binocular assistant microscope with 5 Step magnification changer and focussing.	13	3CCD Digital camera attachment and digital video recording facility with imported high quality video trolley with isolating transformer.
8	Motorized foot controlled Zoom and focus with recentring of focussing position thru foot control.												
9	High quality programmable floor stand with magnetic breaks and clutches for easy positioning through handles and suspension arm.												
10	Stand should have programming facility for setting the speed of XY, Zoom and focus with storage facility of initial setting for multiple users.												
11	Stand should have cold light fiber Optic Illumination with two illumination bulb with semi automatic changeover facility.												
12	Independent integrated binocular assistant microscope with 5 Step magnification changer and focussing.												
13	3CCD Digital camera attachment and digital video recording facility with imported high quality video trolley with isolating transformer.												
<p>3.</p>	<p>OPTICAL COHERENCE TOMOGRAPHY</p> <table border="1"> <tr> <td data-bbox="443 765 518 1302">1</td> <td data-bbox="518 765 1287 1302"> <p>Tomography Imaging Purpose Cross Sectional Imaging of Fundus Signal Type Optical Scattering from Tissue Signal Source Super luminescent Diode, 820 nm Optical Power 750 Microwatts at Cornea Axial Resolution:5 Micrometer (in tissue) Transverse resolutions: 15 micrometer. Sample Size 20 mm in tissue Scanners Galvanometric Mirrors Scan Patterns Line, Circle, Concentric Rings, Radial Lines Scan Pixels Adjustable from (1024 axial x 128 transverse) to (1024 axial x 768 transverse) Longitudinal (Depth) Range 2 mm in tissue Scan Rate:25000 or more scans per second Normative Database RNFL (Retinal Nerve Fiber Layer) and Macular Thickness</p> </td> </tr> <tr> <td data-bbox="443 1302 518 1680">2</td> <td data-bbox="518 1302 1287 1680"> <p>Purpose -Fundus Alignment, Documentation Signal Type-CCD image Field of view-290 x 230 Viewing Method-Flat Panel Display Illumination - Near IR / Red-Free Internal Fixation - 32 x 16 LED Dot Matrix External Fixation - Slit Lamp Type Adjustable Blinking LED Minimum Pupil Diameter- 3.2 mm Power Consumption - 700VA Footprint 120 x 85cm - 48inches x 34inches</p> </td> </tr> <tr> <td data-bbox="443 1680 518 1793">3</td> <td data-bbox="518 1680 1287 1793"> <p>PC workstation with Core 2 Duo CPU with inkjet printer(colour), 80 GB HDD, DVD Read/Write, Image capture card and software loaded for digitisation of images, 1GB RAM and interfaces to RVG</p> </td> </tr> </table>	1	<p>Tomography Imaging Purpose Cross Sectional Imaging of Fundus Signal Type Optical Scattering from Tissue Signal Source Super luminescent Diode, 820 nm Optical Power 750 Microwatts at Cornea Axial Resolution:5 Micrometer (in tissue) Transverse resolutions: 15 micrometer. Sample Size 20 mm in tissue Scanners Galvanometric Mirrors Scan Patterns Line, Circle, Concentric Rings, Radial Lines Scan Pixels Adjustable from (1024 axial x 128 transverse) to (1024 axial x 768 transverse) Longitudinal (Depth) Range 2 mm in tissue Scan Rate:25000 or more scans per second Normative Database RNFL (Retinal Nerve Fiber Layer) and Macular Thickness</p>	2	<p>Purpose -Fundus Alignment, Documentation Signal Type-CCD image Field of view-290 x 230 Viewing Method-Flat Panel Display Illumination - Near IR / Red-Free Internal Fixation - 32 x 16 LED Dot Matrix External Fixation - Slit Lamp Type Adjustable Blinking LED Minimum Pupil Diameter- 3.2 mm Power Consumption - 700VA Footprint 120 x 85cm - 48inches x 34inches</p>	3	<p>PC workstation with Core 2 Duo CPU with inkjet printer(colour), 80 GB HDD, DVD Read/Write, Image capture card and software loaded for digitisation of images, 1GB RAM and interfaces to RVG</p>						
1	<p>Tomography Imaging Purpose Cross Sectional Imaging of Fundus Signal Type Optical Scattering from Tissue Signal Source Super luminescent Diode, 820 nm Optical Power 750 Microwatts at Cornea Axial Resolution:5 Micrometer (in tissue) Transverse resolutions: 15 micrometer. Sample Size 20 mm in tissue Scanners Galvanometric Mirrors Scan Patterns Line, Circle, Concentric Rings, Radial Lines Scan Pixels Adjustable from (1024 axial x 128 transverse) to (1024 axial x 768 transverse) Longitudinal (Depth) Range 2 mm in tissue Scan Rate:25000 or more scans per second Normative Database RNFL (Retinal Nerve Fiber Layer) and Macular Thickness</p>												
2	<p>Purpose -Fundus Alignment, Documentation Signal Type-CCD image Field of view-290 x 230 Viewing Method-Flat Panel Display Illumination - Near IR / Red-Free Internal Fixation - 32 x 16 LED Dot Matrix External Fixation - Slit Lamp Type Adjustable Blinking LED Minimum Pupil Diameter- 3.2 mm Power Consumption - 700VA Footprint 120 x 85cm - 48inches x 34inches</p>												
3	<p>PC workstation with Core 2 Duo CPU with inkjet printer(colour), 80 GB HDD, DVD Read/Write, Image capture card and software loaded for digitisation of images, 1GB RAM and interfaces to RVG</p>												
<p>4.</p>	<p>Nd YAG LASER</p> <ol style="list-style-type: none"> 1. Laser wavelength 1064nm, 2. Structure Mode: super-Gaussian for highly precise beam profile. 3. Optical breakdown 2.5 Mj or less in air 4. Pulse duration < 4ns 5. Max. Laser energy 10mj (Single Pulse), 23mj(Double pulse) 6. And 37mj (Triple pulse) 7. Minimum Energy 0.3Mj – 10mj(Single Pulse) 8. Energy levels:22 steps 9. Pulse repetition frequency Max.2 Hz. 10. Focus diameter 10 micron in air 11. Cone angle/Angle of exit aperture 16 Deg. 												

	<p>12. Aiming beam Laser diode with 670nm wave Length, It should be with Four point aiming beam system for</p> <p>13. Perfect focusing/ targeting with astigmatic disorders.</p> <p>14. Aiming beam focus offset +/- 150 um posterior & anterior focus shift.</p> <p>15. Remote laser control unit so that laser parameters can be changed by assistant for easy use, It should not be</p> <p>16. Integrated/mounted on the Slit lamp</p>																		
<p>5.</p>	<p>USG A & B SCAN</p> <table border="1" data-bbox="443 491 1299 1206"> <tr> <td data-bbox="443 491 1299 549">A-scan mode</td> </tr> <tr> <td data-bbox="443 549 1299 765"> B-scan mode :(a)25 Frames per second image acquisition rate. (b) adjustable gain 27-90dB (c) axial resolution :50 microns (d) lateral resolution 100 microns (e) scanning angle :52 degrees (f) image depth : 45 mm </td> </tr> <tr> <td data-bbox="443 765 1299 823">Dynamic movie archiving</td> </tr> <tr> <td data-bbox="443 823 1299 881">Laser & video CD recording facility</td> </tr> <tr> <td data-bbox="443 881 1299 939">Auto & manual measure function</td> </tr> <tr> <td data-bbox="443 939 1299 996">Distance & area measurement on B-scan images</td> </tr> <tr> <td data-bbox="443 996 1299 1054">Vector A-scan measurement</td> </tr> <tr> <td data-bbox="443 1054 1299 1112">Simultaneous B-scan with vector A-scan</td> </tr> <tr> <td data-bbox="443 1112 1299 1170">A-scan dynamic recording with gain adjustments</td> </tr> <tr> <td data-bbox="443 1170 1299 1206">Facility for IOL power calculations(all formulas)</td> </tr> </table>	A-scan mode	B-scan mode :(a)25 Frames per second image acquisition rate. (b) adjustable gain 27-90dB (c) axial resolution :50 microns (d) lateral resolution 100 microns (e) scanning angle :52 degrees (f) image depth : 45 mm	Dynamic movie archiving	Laser & video CD recording facility	Auto & manual measure function	Distance & area measurement on B-scan images	Vector A-scan measurement	Simultaneous B-scan with vector A-scan	A-scan dynamic recording with gain adjustments	Facility for IOL power calculations(all formulas)								
A-scan mode																			
B-scan mode :(a)25 Frames per second image acquisition rate. (b) adjustable gain 27-90dB (c) axial resolution :50 microns (d) lateral resolution 100 microns (e) scanning angle :52 degrees (f) image depth : 45 mm																			
Dynamic movie archiving																			
Laser & video CD recording facility																			
Auto & manual measure function																			
Distance & area measurement on B-scan images																			
Vector A-scan measurement																			
Simultaneous B-scan with vector A-scan																			
A-scan dynamic recording with gain adjustments																			
Facility for IOL power calculations(all formulas)																			
<p>6.</p>	<p>DIGITAL FUNDUS CAMERA</p> <table border="1" data-bbox="443 1244 1299 1820"> <tr> <td data-bbox="443 1244 501 1302">1</td> <td data-bbox="501 1244 1299 1302">Field angles 30-60 DEGREES</td> </tr> <tr> <td data-bbox="443 1302 501 1379">2</td> <td data-bbox="501 1302 1299 1379">Image capture (Color, Fluorescein Angiography, green, blue and red) *IMAGE CAPTURE WITH UNDILATED PUPIL</td> </tr> <tr> <td data-bbox="443 1379 501 1456">3</td> <td data-bbox="501 1379 1299 1456">Capture 1 chip sensor color 1 chip sensor black & white</td> </tr> <tr> <td data-bbox="443 1456 501 1514">4</td> <td data-bbox="501 1456 1299 1514">Monitor 15 inches LCD for direct display</td> </tr> <tr> <td data-bbox="443 1514 501 1572">5</td> <td data-bbox="501 1514 1299 1572">Fixation Light Internal and External fixation light both</td> </tr> <tr> <td data-bbox="443 1572 501 1630">6</td> <td data-bbox="501 1572 1299 1630">Exposure interval 0.5 - 1 sec</td> </tr> <tr> <td data-bbox="443 1630 501 1688">7</td> <td data-bbox="501 1630 1299 1688">Facility for Data storage, data transfer, image archiving, image analysis</td> </tr> <tr> <td data-bbox="443 1688 501 1765">8</td> <td data-bbox="501 1688 1299 1765">Instrument table Asymmetrical motorized suitable for patients in wheel chair</td> </tr> <tr> <td data-bbox="443 1765 501 1820">9</td> <td data-bbox="501 1765 1299 1820">Supporting latest computer hardware & software</td> </tr> </table>	1	Field angles 30-60 DEGREES	2	Image capture (Color, Fluorescein Angiography, green, blue and red) *IMAGE CAPTURE WITH UNDILATED PUPIL	3	Capture 1 chip sensor color 1 chip sensor black & white	4	Monitor 15 inches LCD for direct display	5	Fixation Light Internal and External fixation light both	6	Exposure interval 0.5 - 1 sec	7	Facility for Data storage, data transfer, image archiving, image analysis	8	Instrument table Asymmetrical motorized suitable for patients in wheel chair	9	Supporting latest computer hardware & software
1	Field angles 30-60 DEGREES																		
2	Image capture (Color, Fluorescein Angiography, green, blue and red) *IMAGE CAPTURE WITH UNDILATED PUPIL																		
3	Capture 1 chip sensor color 1 chip sensor black & white																		
4	Monitor 15 inches LCD for direct display																		
5	Fixation Light Internal and External fixation light both																		
6	Exposure interval 0.5 - 1 sec																		
7	Facility for Data storage, data transfer, image archiving, image analysis																		
8	Instrument table Asymmetrical motorized suitable for patients in wheel chair																		
9	Supporting latest computer hardware & software																		
<p>7.</p>	<p>NON CONTACT TONOMETER AND NON CONTACT PACHYMETER</p> <table border="1" data-bbox="443 1858 1299 2135"> <tr> <td data-bbox="443 1858 501 1916">1</td> <td data-bbox="501 1858 1299 1916">Air puff non-contact tonometer</td> </tr> <tr> <td data-bbox="443 1916 501 1974">2</td> <td data-bbox="501 1916 1299 1974">To measure intraocular pressure without actual eye contact</td> </tr> <tr> <td data-bbox="443 1974 501 2032">3</td> <td data-bbox="501 1974 1299 2032">Digital display of intraocular ocular pressure</td> </tr> <tr> <td data-bbox="443 2032 501 2109">4</td> <td data-bbox="501 2032 1299 2109">Measurement range 4 to 59 mm of Hg Measurement mode: auto start or manual (selectable)</td> </tr> <tr> <td data-bbox="443 2109 501 2135">5</td> <td data-bbox="501 2109 1299 2135">Pachymeter range: 200-900 micrometers</td> </tr> </table>	1	Air puff non-contact tonometer	2	To measure intraocular pressure without actual eye contact	3	Digital display of intraocular ocular pressure	4	Measurement range 4 to 59 mm of Hg Measurement mode: auto start or manual (selectable)	5	Pachymeter range: 200-900 micrometers								
1	Air puff non-contact tonometer																		
2	To measure intraocular pressure without actual eye contact																		
3	Digital display of intraocular ocular pressure																		
4	Measurement range 4 to 59 mm of Hg Measurement mode: auto start or manual (selectable)																		
5	Pachymeter range: 200-900 micrometers																		

8.	<p>NON CONTACT OPTICAL BIOMETER</p> <p>Measurement range</p> <ul style="list-style-type: none"> • Axial length 14 – 40 mm • Corneal radii 5 – 10 mm • Anterior chamber depth 1.5 – 6.5 mm • White-to-white 8 –16 mm <p>IOL calculation formulas</p> <ul style="list-style-type: none"> • Holladay 1 and 2, Hoffer® Q, Haigis, SRK® II, SRK® / T • Clinical history and contact lens fitting method for calculation of corneal refractive power following refractive corneal surgery • Haigis-L IOL calculation for eyes following myopic / hyperopic LASIK / PRK / LASEK surgery • Calculation of phakic anterior and posterior chamber implants • Optimization of IOL constants <p>Axial length measurement</p> <ul style="list-style-type: none"> • Normal mode and composite signal mode <p>Instrument table Printer</p>																																				
9.	<p>VISUAL FIELD ANALYSER</p> <table border="1" data-bbox="438 992 1299 2068"> <tr><td>1</td><td>High quality Goldman standard automated perimeter with bowl size 30cm</td></tr> <tr><td>2</td><td>Maximum intensity 10,000Asb, Bowl illumination 31.5Asb</td></tr> <tr><td>3</td><td>Floppy drive, internal hard disk drive with Magneto Optical Disk (MOD) drive</td></tr> <tr><td>4</td><td>Stimulation duration 200ms, wavelenth Broad band visible light</td></tr> <tr><td>5</td><td>Stimulus/background colour White on White, Blue on yellow (SWAP)</td></tr> <tr><td>6</td><td>Maximum temporal range 90Deg. Suitable for central 30 as well as full field testing</td></tr> <tr><td>7</td><td>Central field test patterns 30-2,24-2, 10-2, Macula</td></tr> <tr><td>8</td><td>Peripheral field test pattern 60-4, Nasal Step</td></tr> <tr><td>9</td><td>Threshold test strategies full threshold, Fast Pac, SITA or equivalent</td></tr> <tr><td>10</td><td>Glaucoma progression analysis and Serial Analysis for patient follow up</td></tr> <tr><td>11</td><td>Screening field test P-60, FF-240, Nasal Step for periphery.</td></tr> <tr><td>12</td><td>Screening test strategies Two zone, Three Zone and Quantify Defects</td></tr> <tr><td>13</td><td>Kinetic Testing, Custom Test, Automatic Pupil measurement</td></tr> <tr><td>14</td><td>Stimulus Size I-V as per Goldman standards</td></tr> <tr><td>15</td><td>Glaucoma hemi field test, Hail -Krakau blind spot monitor</td></tr> <tr><td>16</td><td>Video eye monitoring, trial Lens Holder, Gaze tracking System</td></tr> <tr><td>17</td><td>Head tracking, Vertex Monitoring, Touch screen on CRT, Keyboard</td></tr> <tr><td>18</td><td>Motorized chinrest, Original Manufacturer Motorized table with Laser Jet Printer</td></tr> </table>	1	High quality Goldman standard automated perimeter with bowl size 30cm	2	Maximum intensity 10,000Asb, Bowl illumination 31.5Asb	3	Floppy drive, internal hard disk drive with Magneto Optical Disk (MOD) drive	4	Stimulation duration 200ms, wavelenth Broad band visible light	5	Stimulus/background colour White on White, Blue on yellow (SWAP)	6	Maximum temporal range 90Deg. Suitable for central 30 as well as full field testing	7	Central field test patterns 30-2,24-2, 10-2, Macula	8	Peripheral field test pattern 60-4, Nasal Step	9	Threshold test strategies full threshold, Fast Pac, SITA or equivalent	10	Glaucoma progression analysis and Serial Analysis for patient follow up	11	Screening field test P-60, FF-240, Nasal Step for periphery.	12	Screening test strategies Two zone, Three Zone and Quantify Defects	13	Kinetic Testing, Custom Test, Automatic Pupil measurement	14	Stimulus Size I-V as per Goldman standards	15	Glaucoma hemi field test, Hail -Krakau blind spot monitor	16	Video eye monitoring, trial Lens Holder, Gaze tracking System	17	Head tracking, Vertex Monitoring, Touch screen on CRT, Keyboard	18	Motorized chinrest, Original Manufacturer Motorized table with Laser Jet Printer
1	High quality Goldman standard automated perimeter with bowl size 30cm																																				
2	Maximum intensity 10,000Asb, Bowl illumination 31.5Asb																																				
3	Floppy drive, internal hard disk drive with Magneto Optical Disk (MOD) drive																																				
4	Stimulation duration 200ms, wavelenth Broad band visible light																																				
5	Stimulus/background colour White on White, Blue on yellow (SWAP)																																				
6	Maximum temporal range 90Deg. Suitable for central 30 as well as full field testing																																				
7	Central field test patterns 30-2,24-2, 10-2, Macula																																				
8	Peripheral field test pattern 60-4, Nasal Step																																				
9	Threshold test strategies full threshold, Fast Pac, SITA or equivalent																																				
10	Glaucoma progression analysis and Serial Analysis for patient follow up																																				
11	Screening field test P-60, FF-240, Nasal Step for periphery.																																				
12	Screening test strategies Two zone, Three Zone and Quantify Defects																																				
13	Kinetic Testing, Custom Test, Automatic Pupil measurement																																				
14	Stimulus Size I-V as per Goldman standards																																				
15	Glaucoma hemi field test, Hail -Krakau blind spot monitor																																				
16	Video eye monitoring, trial Lens Holder, Gaze tracking System																																				
17	Head tracking, Vertex Monitoring, Touch screen on CRT, Keyboard																																				
18	Motorized chinrest, Original Manufacturer Motorized table with Laser Jet Printer																																				
10.	<p>GREEN LASER WITH SLIT LAMP</p>																																				

	<ol style="list-style-type: none"> 1. Should be a diode pumped frequency doubled solid state laser. 2. Should have a 532 nm operating wavelength. 3. Should have a forced air cooling system. 4. Should have a aiming laser wavelength of 635 nm. 5. Should have a out put power ranging from 30 mW to 2000 mW (2W). 6. Should have a exposure time of 10 ms – 2000 ms and continuous wave. 7. Should be supplied with Good Slit Lamp. 8. Should have provision to connect two doctors filter. 9. Should have provision for remote interlock 10. Should have dual laser ports. 11. Should have LED illumination at the ports for visual verification. 12. Should have power control in the footswitch. 13. Should have Ready – Standby control in the footswitch. 14. Should have voice confirmation from the machine. 15. Should have power source for LIO on the Console itself. 16. Should have electric requirement of 220V. 17. Should have LED in the footswitch for visualization in the dark OT. 																														
<p>11.</p>	<p>AUTOREFRACTOMETER WITH KERATIOMETER</p> <p>Objective and subjective mode and measuring corneal astigmatism. Low contrast glare acuity testing. Measureable range-sphere plus/minus 20D, Cyl 0 to 7D, Axis 0 to 180. Min. pupil size 2mm. Vertex dist. 10.5, 12.0, 13.5, preferably with IOL mode and print out facility. High accuracy measurements of corneal and contact lens radii and determination of corneal astigmatism. Distance independent co-independent measuring technique. Prism cells for contact lens measurement with power supply unit. Range 4 mm to 13mm radius with 0.01mm increments. Halogen lamp illumination, Steel balls standard radius for calibration.</p>																														
<p>12.</p>	<p>PHOTO SLIT LAMP</p> <table border="1" data-bbox="438 1338 1299 2162"> <tr> <td>1</td> <td>• Slit width - 0-14 mm adjustable</td> </tr> <tr> <td>2</td> <td>• Slit length 0.1 –14mm</td> </tr> <tr> <td>3</td> <td>•Slit angle +90 – 90 adjustable in steps continuous</td> </tr> <tr> <td>4</td> <td>• Decentering of slit image +4 to –4 horizontal</td> </tr> <tr> <td>5</td> <td>• Diaphragm sizes 0.2 – 14mm</td> </tr> <tr> <td>6</td> <td>• Rotation 0-180 degrees</td> </tr> <tr> <td>7</td> <td>• Light source halogen lamps</td> </tr> <tr> <td>8</td> <td>• Slit tilt 0-20 degrees</td> </tr> <tr> <td>9</td> <td>• Filters cobalt blue, red free, neutral, UV protection</td> </tr> <tr> <td>10</td> <td>• Binocular microscope with standard objective and eyepieces</td> </tr> <tr> <td>11</td> <td>• 5x----40x magnification in steps with drum rotation</td> </tr> <tr> <td>12</td> <td>• 6-----40 mm field of view</td> </tr> <tr> <td>13</td> <td>• Movement base movement (x, y, vertical), adequate chin rest movement</td> </tr> <tr> <td>14</td> <td>• Motorized imported table for slit lamp</td> </tr> <tr> <td>15</td> <td>• Applanation tonometer</td> </tr> </table>	1	• Slit width - 0-14 mm adjustable	2	• Slit length 0.1 –14mm	3	•Slit angle +90 – 90 adjustable in steps continuous	4	• Decentering of slit image +4 to –4 horizontal	5	• Diaphragm sizes 0.2 – 14mm	6	• Rotation 0-180 degrees	7	• Light source halogen lamps	8	• Slit tilt 0-20 degrees	9	• Filters cobalt blue, red free, neutral, UV protection	10	• Binocular microscope with standard objective and eyepieces	11	• 5x----40x magnification in steps with drum rotation	12	• 6-----40 mm field of view	13	• Movement base movement (x, y, vertical), adequate chin rest movement	14	• Motorized imported table for slit lamp	15	• Applanation tonometer
1	• Slit width - 0-14 mm adjustable																														
2	• Slit length 0.1 –14mm																														
3	•Slit angle +90 – 90 adjustable in steps continuous																														
4	• Decentering of slit image +4 to –4 horizontal																														
5	• Diaphragm sizes 0.2 – 14mm																														
6	• Rotation 0-180 degrees																														
7	• Light source halogen lamps																														
8	• Slit tilt 0-20 degrees																														
9	• Filters cobalt blue, red free, neutral, UV protection																														
10	• Binocular microscope with standard objective and eyepieces																														
11	• 5x----40x magnification in steps with drum rotation																														
12	• 6-----40 mm field of view																														
13	• Movement base movement (x, y, vertical), adequate chin rest movement																														
14	• Motorized imported table for slit lamp																														
15	• Applanation tonometer																														

	16	• Beam splitter
	17	• Slit lamp camera
13.	INDIRECT OPHTHALMOSCOPE	
	<ul style="list-style-type: none"> • Binocular Indirect6 Ophthalmoscope with precision viewing upto 1.0 mm pupil size. • Spot size: 3 integrated spot size small spot, medium spot and large spot. • Filters: 4 integrated filters to choose from red filter, cobalt blue filter, yellow filter and diffuser. • Vertical adjustment, +/- 4° • Integrated flip up adjustment optics which can be flipped and locked at 0°, 12.5°, 47.5°, 60°. • Aperture and filter adjustment levers: can be locked to the desired position required. • Locking apertures and filter adjustment (Safety clutch): protect mechanism from the forced adjustment while in the lock position. • P.D. Range from 46-74 mm. • 6V Halogen Xenon Bulb. • Teaching Mirror. • Rechargeable Li-ion battery transformer with LED indicator • Desk Top-cum- Wall Transformer. • Transformer compatible with voltage system of AC 220- 240 Volts. • Large & small depressors • Carrying case • + 20D lens. 	
14	DIRECT OPHTHALMOSCOPE	
	<ol style="list-style-type: none"> 1. Should be rechargeable battery with Charger / mains operated. 2. Should have halogen / LED light source 3. Should have red-free filters 4. Should have small and large spot sizes, fixation targets, slit aperture, hemi-spot and cobalt blue filter 5. Should have wheel control with lens powers ranging from +20D to -35D in single diopter steps up to 10D and 5D steps above that. 6. Should have illuminated lens dial. 7. Should have rubber brow rest. 8. Should have dust free optics and a spherical optical system 9. Should be supplied with a carrying case. 10. If halogen lamp is used, then the following additional accessories should be supplied <ol style="list-style-type: none"> a. Bulb – 1 no b. Bulb holder c. Bulb cover 	
15	STREAK RETINOSCOPE	
	<ol style="list-style-type: none"> 1. Should have an external focusing sleeve which is easy to grip and manipulate. 2. Should have crossed-linear polarizing filter. 3. Should allow one-hand operation for streak focus and 360° streak rotation. 4. Should be interchangeable to plane mirror and concave mirror mode by sleeve movement. 5. Should use halogen/Xenon streak lamp. 6. Should have 100% dust proof housing and multi-coated optics. 7. Should have detachable brow rest for spectacle wearer 8. Should be battery/ rechargeable battery operated. 9. Should have a carrying case. 10. Should be supplied with the following accessories. <ul style="list-style-type: none"> • Bulb – 5 nos. • Bulb holder • Bulb cover 	

<p>16</p>	<p>Ophthalmic refraction Unit</p> <ol style="list-style-type: none"> 1. One fully upholstered comfortable ophthalmic chair with facility of full motorized recline and up & down movements for 300 mm ± 15 mm 2. One stand and console with illuminating light for examination. 3. The stand should have adequate space for placing Keratometer or autorefractometer, NCT, Lensometer, Direct Ophthalmoscope and streak retinoscope, Chart projector & Trial lens set.
<p>17</p>	<p>SURGICAL SETS</p> <ol style="list-style-type: none"> 1. CATARACT SET (TITANIUM & STEEL) 2. GLAUCOMA SETS 3. DCR SETS 4. ENTROPION SET 5. ENUCLEATION SET 6. EVISCERATION SET 7. SQUINT SET