

Annexure-A

o.87-RIMS-OPH-E-15

Imphal the 26th June 2015

(All the equipments should be US FDA approved/CE Certified)

Item no.1:- Phaco-emulsification system with accessories:

Specifications:-

- i. Fully programmable microprocessor control system.
- ii. Ability to drive performance four crystal hand piece – autoclavable.
- iii. Ability to drive neosonix hand piece.
- iv. Aqualase modality with liquid fracture.
- v. Facility to drive torsional ultrasound hand piece (Ozil).
- vi. Handpieces should be compatible with tips like standard micro-tip and Kelman.
- vii. Various ultrasound submodes like continuous, pulsed burst and bimodal application.
- viii. Micro coaxial capable.
- ix. Ability to drive Pneumatic Guillotine cutter for Anterior Vitrectomy & Programmable foot switch.
- x. Advanced fluidics with quick, smooth control of peristaltic pump.
- xi. Advanced active irrigation with quick, smooth control of irrigation flow.
- xii. Programmable IOP target setting.
- xiii. Modularized fluidic connections with disposable Fluidic Management System (FMS).
- xiv. Power assisted IOL insertion capability.
- xv. Bipolar coagulation capability.
- xvi. Automated IV pole.
- xvii. Wireless control capability for ultrasound, irrigation, aspiration, cautery etc.
- xviii. Voice confirmation of surgical steps or mode changes.
- xix. Hand pieces – 2 nos.

Item No.2:- Optical Coherence Tomography (OCT) machine:

Specifications:-

- i. LED Lamp
- ii. Spectral Domain OCT
- iii. High resolution tomography
 - a) Axial resolution – 5 μ m (in tissues)
 - b) Transverse resolution - 15 μ m (in tissues)



- iv. Optical source
 - a) Super Luminescent diode
- v. Scan Speed
 - a) At least 20,000 A-Scan/Sec
- vi. A-Scan depth
 - a) At least 2mm (in tissues)
- vii. Field of vision
 - a) 36°W x 20°W
 - b) Frame rate
 - >1.5 Hz
 - c) Iris imaging capable
 - d) Normative database
 - Macular thickness
 - Optic Nerve Head
 - RNFL
 - e) Capable of ganglion cell analysis, Guided Progression Analysis, HD-5 line Raster and Anterior segment Imaging.

Item No.3:- Slit Lamp Biomicroscope with zoom:

Specifications:-

- i. Slit Lamp Illuminator:
- ii. Slit Image Width: 0-8 mm continuous
- iii. Slit Image Length: 1-8 mm continuous
- iv. Illumination field diameter: 8,5,3,2,1, 0.2 mm test mark with fixation star
- v. Slit Image radial range: +/- 90 degrees
- vi. Radial movement of slit light illumination relative to microscopic axis:
horizontal +/- 90 degrees, vertical 0-20 degrees
- vii. Filters: blue, red free, grey 10%, heat-absorbing filter
- viii. Light source: Light-emitting diode
- ix. Working Temperature: 0-50 degrees
- x. Objective lens focal length: 105 mm
- xi. Magnification changer: 6.3 x, 10x, 16x, 25x, 40 x
- xii. Ocular magnification: 12.5x
- xiii. Range for adjusting eye- pieces: +8 to -8
- xiv. Inter- pupillary distance: 52-78 mm.

Signature

Item No.4:- Mobile Operating Table

Technical Specifications:-

A) Should be Mobile modular operating table for Ophthalmology, electro-hydraulic drive, with Backlit corded hand control, with upper back plate, with leg plates, with head rest, with SFC padding of 80 mm.

B) Should have following features:

- i. Battery (1 week/60-70 operations on Single Charge) and mains operation.
- ii. Stable base construction with 4 double swivel castors for easy motion and maneuvering (locking of the double swivel castors via 2 foot pedals).
- iii. Base cover and cover for the override control panel made of CrNi steel, resistant to impact, breakage and disinfectants.
- iv. SFC padding (Special Foam Core – 80 mm) with multi-layer construction for exceptional comfort during patient positioning and utmost patient safety
- v. Safe patient positioning due to optimum covering of table top joints.
- vi. Should have short motorized back plate.
- vii. Column casing made of CrNi steel.
- viii. Supporting bars for the seat and back section, leg plate sockets, joint covers and side rails made of CrNi steel.
- ix. Operating table top subdivided into 5 sections: head rest, upper back plate, lower back plate, seat plate & leg plates.
- x. In the event of failure of the electronics the table shall be capable of working through an override control key panel system mounted on the top of the column.
- xi. Should be able to be used in Normal & Reverse Position.
- xii. Entire table top without crossbars, allowing intra-operative fluoroscopy.
- xiii. Longitudinal shift should be minimum 310 mm on the head side
- xiv. Operating elements: Backlit corded hand control, override panel, foot switch (optional).
- xv. Radiolucent back plate without any barriers, integrated cassette channel
- xvi. Backlit hand control – light in darkness.
- xvii. FLEX/REFLEX and 0 – level are integrated for quick positioning.

C) Should meet following Electrical Standards:

- i. Special-design, maintenance – free batteries with a capacity for about a week's use in the operating room
- ii. Battery charge level: electronic monitoring with optical indicator
- iii. Recharging of the batteries & supply of operating table by means of a mains cord



- iv. Nominal mains voltage 220/230-240 V
- v. Class II, Type B ; IEC 60601-1
- vi. Mains frequency 50/60 Hz.

D) Should meet following technical data:

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|------|---|--------------|
| i. | Length of table | - 2140 mm |
| ii. | Width of seat/lower back plate without side rails | - 540 mm |
| iii. | Width of seat/lower back plate with side rails | - 590 mm |
| iv. | Max. Patient Weight (with accessories) | - 300-350 kg |

E) Should have following Electro hydraulic adjustments:

Via backlit corded hand control or override control panel, with status indicators for battery charge level and base brake feature, located at the column head.

F) Adjustment options via corded hand control or IR remote control:

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|------|-------------------------------------|------------|
| i. | Height without padding | 575-1000mm |
| ii. | Trendelenburg/reverse trendelenburg | +25°/-25° |
| iii. | Lateral Tilt | 15° |
| iv. | Lower back plate | 70° / -40° |
| v. | Leg plates | 5° / 95° |
| vi. | Longitudinal Shift | 310 mm |

G) Should be supplied with Basic Equipment:

Standard Accessories: OT Table

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|-------|--|--------|
| i. | Arm board with SFC pads and clamp | 2 nos. |
| ii. | Double Articulation Head Rest with SFC padding | 1 no. |
| iii. | Adaptors for head rest | 1 no. |
| iv. | Extension Segment | 1 no. |
| v. | Cable connected hand control | 1 no. |
| vi. | Body Strap for fastening on the side rails | 1 no. |
| vii. | Anesthesia screen with Radial Setting clamp | 1 no. |
| viii. | Pair of leg plates | 1 no. |

H) Other accessories:-

- i. Present height adjustment
- ii. Provisions for chest guard
- iii. Electronically controlled movement via positions
- iv. Adjustable cushioned head and wrist rest



Item no.5:- Vitrectomy Machine:

Specifications:-

- i. Should have the ability to drive vertical and radical reciprocating guillotine cutter upto 5000 cps.
- ii. Should have facility to generate direct venture vacuum of upto 800 mm Hg through cassette system having two independent aspiration ports.
- iii. Should have 3D technology for the linear control of vacuum and cut rate simultaneously in vitrectomy mode.
- iv. Should have facility of fragmentation with the help of at least four crystal ultrasound hand piece with sub-modes like fixed, proportional and momentary.
- v. Should have the facility to drive scissors having proportional and multi-cut sub modes.
- vi. Should have the facility to drive membrane peeler cutter hand piece.
- vii. Should have the facility to inject and extract silicone oil through syringe piston mechanism.
- viii. Should have the fully programmable footswitch with the facility to change procedural modes through footswitch.
- ix. Should have the facility of diathermy.
- x. Should have the facility to digitally control the infusion pressure and the facility to toggle between regular infusion pressure and a higher alternate pressure (to achieve tamponade effect) with the help of footswitch.
- xi. Should have the facility of gas fluid exchange.
- xii. Should have dual source halogen illumination.
- xiii. Should have the facility for the extrusion of the sub retinal fluid.
- xiv. Should have the facility of voice reconfirmation.
- xv. Should have the fully functional wireless remote control.
- xvi. Should have programmability to store various parameters.
- xvii. Should have timer to indicate elapsed time for particular sub modes.
- xviii. Should have multi microprocessors for the efficient and precise operations.

Item no.6:- Operating Microscope:

Specifications:-

- i. Apochromatic optics with antireflex multicoating.
- ii. Motorized zoom system.
- iii. Good focusing range of atleast 50-60 mm.
- iv. Speed control for zoom and focus.
- v. 180 degree tiltable binocular tube f=170 mm.
- vi. Deep view depth of field management system.
- vii. Built in assistant microscope with independent magnification changer.
- viii. XY coupling with speed control.



- ix. SCI red reflex illumination.
- x. Xenon light source.
- xi. Magnetic clutches for all lock positions.
- xii. BIOM compatible.
- xiii. Beam splitter with still/video camera and monitor.

Item No.7:- Indirect Ophthalmoscope (IDO) with 20 D lens:

Specifications:

- i. Binocular Indirect Ophthalmoscope with precision viewing upto 1.0 mm pupil size.
- ii. Spot size: 3 integrated spot size small spot, medium spot and large spot.
- iii. Filters: 4 integrated filters to choose from red filter, cobalt blue filter, yellow filter and diffuser.
- iv. Vertical adjustment, +/- 4°
- v. Integrated flip up adjustment optics which can be flipped and locked at 0°, 12.5°, 47.5°, 60°.
- vi. Aperture and filter adjustment levers: can be locked to the desired position required.
- vii. Locking apertures and filter adjustment (Safety clutch): protect mechanism from the forced adjustment while in the lock position.
- viii. P.D. Range from 46-74 mm.
- ix. 6V Halogen/LED Xenon Bulb.
- x. Teaching Mirror.
- xi. Rechargeable Li-ion battery transformer with LED indicator
- xii. Desk Top-cum- Wall Transformer.
- xiii. Transformer compatible with voltage system of AC 220- 240 Volts.
- xiv. Large & small depressors
- xv. Carrying case
- xvi. + 20D lens.



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