

Annexure-A

No.RIMS/E-13/42

Imphal, the 23rd July 2015

Item No.1:- Technical Specifications for Surgical Operating Microscope:-

Sl No.	Microscope	Specifications
i.	Magnification	6:1 zoom motorized
ii.	Working distance	207-470 mm variable through motorized multifocal lens, also Manually adjustable
iii.	Magnification range	1.2x -12.8x with 10x eyepiece
iv.	Filed of view	16.5 mm- 180 mm with 10x eyepiece
v.	Focusing	Motorised via multifocal lens activated through hand switch, control unit and manual adjustable override.
vi.	Eyepeices	Wide field eyepiece for spectacle wear 10X, dioptric setting +/- 5 with adjustable eye cap
vii.	Stero Base	24 minimum
viii.	Light source	Main lamp should be 300 W Xenon illumination
ix.	Emergency lamp	21 V/150 W Halogen for back up
x.	Illumination power supply	Separate power supply for main illumination and for back up illumination
xi.	Illumination field diameter	Built in automatic zoom synchronized illumination field diameter, with manual override and reset feature.
xii.	Binocular tube	Variable angle 30-150 degree
xiii.	Control unit	Graphic LCD/LED data display with background illumination, menu provides upto 8 user specific configurations with built in auto diagnostics system
xiv.	Asepsis	Detachable serializable protective glass for the objective, serializable component for all drive knobs.

Sl No.	Stand	Specifications
i.	Brakes	Floor stand with 6 electromagnetic brakes
ii.	Maneuverability of the total system	Extremely light and smooth movement
iii.	Maximum extension	1,440 mm
iv.	CCTV camera	Minimum it should have 3 chip CCD camera with external attachment & DVD recorder
v.	Video adapter	Video adapter with independent fine focusing mechanism.
vi.	Stand	Compact base (measures 637 mm x 637 mm)
vii.	Neuronavigation	Compatible for neuronavigation and IGS system.



Item No.2:- ELECTROSURGERY UNIT SPECIFICATION FOR NEUROSURGERY:

- I. Microprocessor controlled Electrosurgery unit.
- II. TFT Display with focused view of current active mode.
- III. Facility to store more than 100 programs with surgeon's name & procedure.
- IV. Visual indicator for the actual power being delivered.
- V. Should have Universal Socket for Monopolar, Bipolar and Neutral Electrode.
- VI. Should have continuous patient monitoring with return electrode (neutral electrode).
- VII. Should have Bipolar CUT/COAG facility also.
- VIII. Should have facility to upgrade with optional Bipolar Cut & Coagulation upgradation.
- IX. Should have Auto Start and Auto Stop facility for Bipolar modes.
- X. Bipolar CUT -1 to 100w and Bipolar COAG-1 to 120 w.
- XI. Should have special Micro-bipolar CUT/COAG modes (1-50 w) for Neurosurgery.
- XII. Should have two separate type of Bipolar CUT modes, one for general surgery and another for Micro-Surgery.
- XIII. Should be supplied with Non-Stick forceps.
- XIV. Should be supplied with Irrigation forceps.
- XV. Should be compatible with Irrigation Module, which can be controlled by COAG foot pedal.
- XVI. Should be upgradable with additional output & modes for Monopolar, Bipolar & Vessel Sealing as required

Item No.3:- SPECIFICATIONS FOR HIGH SPEED ELECTRICAL DRILL SYSTEM

A:-

Sl. No.	Specification
i.	Electrical Drill system with power and High speed upto 75,000 rpm.
ii.	System should have inbuilt irrigation facility
iii.	System should have inbuilt Endoscope Lens Cleaning facility
iv.	System should have inbuilt port for integration with nerve monitoring system
v.	Touch screen console to allow visible display, setting of speed, hand-piece selection
vi.	Foot control for varying the speed and foot button for reverse rotation
vii.	System should give audible beeps/alerts while in reverse action
viii.	Motor should be light weight and not be bulky
ix.	The motor should be powerful with power-120W and torque 25mN-m and should be in design to reduce vibration
x.	Motor should be between 3 to 4 inches in length and 0.6 to 0.7 inch in diameter

xi.	The motor should be have infinite duty cycle at 60000 rpm
xii.	No Lubrication or seal should be required to run the motor
xiii.	The foot control and motor cables should be colored at ends for identification
xiv.	Cables should be lightweight, flexible and auto cleavable
xv.	Attachments should have tapered and angled design for better visibility under microscope
xvi.	Should have quick release and lock system for tools and attachments (spinal, neuro and orthopedic tools)
xvii.	There should be colour coding to identify matching attachments and tools
xviii.	Reciprocating, Sagital and Oscillating saws should be quoted in options along with blades.

B.- Attachment and Dissecting Tools

Sl. No.	Specification
i.	System should have footed attachment for craniotomy along with 2.3 mm dia tapered tools 10 nos.
ii.	System should have perforator attachment for making Burr hole along with perforated cutters 2 nos.
iii.	System should have footed attachments for multi levellaminectomy along with 3.0mm dia tapered tools 10 nos.
iv.	Bone mill attachment with consumables (5 nos.) should be quoted
v.	Metal cutting attachment along with 1.6mm & 3.0mm diameter carbide tools (5 each) should be quoted
vi.	System should have provision for attachment of orthopedic appliances such as drill bit (2.5, 3.5, 4,mm), burr, saw and reamer (size 7-12) of different sizes
vii.	System should have 9 cm and 14cm long straight attachments with 3.0 mm, 4.0 mm,5.0mm diameter ball fluted tools 10 nos. each to be quoted
viii.	System should have 9cm and 14 cm long angled attachments with 3.0mm, 4.0mm, 5.0mm diameter ball diamond tools 10 nos. each to be quoted
ix.	System should have micro telescopic attachments less than 5mm in dia, 12cm long straight, curved and 15 cm long hooded with telescope base for Endoscopic applications along with 2.5 mm Dia Match Head and 3.0mm dia match head diamond 5 nos each for both tube lengths should be quoted
x.	Should have suitable for mastoid, skull base and neuro otology applications
xi.	Otology attachment of 7.5 cm length with straight & angled design with right balance in cutting efficiency, control, handling and smoothness.
xii.	An extensive selection of dissecting tools should be available in cutting and diamond surface in various diameters 0.6mm to 8mm
xiii.	In built irrigation should be available
xiv.	There should be option to connect to skull base burs to access through endonasal approach.

Signature