

Notice Inviting e-Tender

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Procurement of Various Medical Equipment for Medical College and Hospitals

(Submission of Bid through *online*)

Bid Reference No.: WBMSCL /NIT-219/2018

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The following amendments have been made in the tender document. The changes are highlighted in yellow in the document below,

Amendment (Revised Technical specifications)

Schedule - I

C-ARM

PARAMETER / FEATURE	THRESHOLD LIMIT / RANGE
IITV SYSTEM	
IITV SYSTEM - IMAGE INTENSIFIER	12"(TRIPLE FIELD) 25 MM
IITV SYSTEM - CENTRE RESOLUTION	48 LP/CM AT 9.0 FIELD OR MORE
CCD CAMERA	
CCD CAMERA APERTURE	1/2"
CAPABLE OF CAPTURING IMAGE AT	0.3 LUX
CCD CAMERA RESOLUTION	MINIMUM 1K X 1K
MONITOR	
SIZE OF MEDICAL GRADE LCD MONITORS (1K X 1K)	19" OR MORE

NO OF MONITOR	2
MONITOR TROLLY WITH SELVES	1
C-ARM STAND	
C ARM STAND MOVEMENTS - HORONTAL TRAVEL (MM)	200 OR MORE
C ARM STAND MOVEMENTS - PANNING MIOVEMENT IN DEGREES	± 10 OR MORE
C ARM STAND MOVEMENTS - ORBITAL MOVENT IN DEGREES	115 OR MORE
FOCUS TO I.I DISTANCE (MM)	900 OR MORE
VERTICAL MOVEMNT MOTORISE/OIL FREE (MM)	400 OR MORE
FOCUS TO I.I CLEARANCE (MM)	730 OR MORE
C ARM ROTATION IN DEGREES	± 180 OR MORE
GENERATOR	
GENERATOR - HIGH FREQUENCY WITH OUTPUT IN KW	10 KW OR MORE
FREQUENCY IN KHZ	40-100 OR MORE
GENERATOR IN KV	40 - 110 OR MORE
FLUROSCOPY	
FLUOROSCOPIC (mA)	(0.4-3.0) mA OR MORE
RADIOGRAPHIC RANGE (mA)	(40-100) mA OR MORE
PULSED FLURO MODE WITH FACILITY TO SELECT TIME INTERVAL BETWEEN PULSES	FROM 1 S- 8S OR MORE
X-RAY TUBE FOCUS	
SMALL (MM)	0.6 X 0.6 OR MORE
TUBE HEAT STORAGE CAPACITY	
ROTATING ANODE TUBE HEAT STORAGE CAPACITY (KHU)	300 OR MORE
IMAGE MEMORY	
IMAGE MEMORY	100000 IMAGES (1K X 1K)
PERMANENT IMAGE STORAGE CAPACITY(IMAGE)	500 OR MORE
MUST HAVE SPECIFICATION	
PARAMETER / FRATURE	YES / NO
CCD CAMERA WITH HIGH RESOLUTION OPTICAL PATH	

ADR IN FLUORO MODE	
MOBILE TROLLEY WITH MODULAR WITH HEIGHT ADJUSTMENT THROUGH ACTUATOR	
VERTICAL TRAVEL RECTANGULAR TELESCOPIC CARRIAGE	
ZOOM IN/ OUT FACILITY	
DATA RECORDING FACILITY	
GENERATOR - MICROPROCESSOR CONTROLLED DIGITAL SYSTEM WITH DISPLAY	
FLUOROSCOPY MODES - BOOST FLUOROSCOPY MODE / HIGH DEFINITION FLUOROSCOPY	
DIGITAL FLUOSCOPIC TIMER INCORPORATED WITH AUTO CUT OFF AFTER 300 S	
AUTO DOSE RATE CONTROL IN FLUOROSCOPY MODE BY WHICH mA AND KV CAN BE SET AUTOMATICALLY AS PER ORGAN THICKNESS	
MANUAL KV SELECTION WITH AVAILABLE DURING FLUOROSCOPY	
DIGITAL IMAGE PROCESSING AND MEMORY SYSTEM WITH PC OR USB DRIVE	
DICOM COMPATIBLE SYSTEM	
ACCESSORIES	
LEAD JACKET-12 NOS.	
LEAD GOGLES-04 NOS.	
THYROID GUARD-12 NOS.	
LEAD HANGER-02 NOS.	
Electrical Safety and Quality Certification	
STANDARD & SAFETY CERTIFICATION (EUROPEAN CE & US FDA APPROVED)	
AERB TYPE APPROVAL CERTIFICATE	

Schedule - II

PFT UNIT

VALUES	THRESHOLD LIMIT/ RANGE
Measurement parameters with F/V loop	20 OR MORE
RAM IN GB	2 OR MORE
HARD DRIVE IN GB	500 OR MORE
TFT SCREEN SIZE(DIAGONAL) IN INCH	14 OR MOIRE
MUST HAVE SPECIFICATIONS	
Calibration FREE EQUIPMENT	
Auto Interpretation facility	
USB COMPATIBILITY	
ATS/ERS Criteria	
Inspiratory and expiratory real-time curve	
No influence of humidity, barometric pressure, contamination	
Capability of Sensor to sense low flow	
Regular upgradation of software	
Standard and safety certification	
EUROPEAN CE or US FDA	

Schedule - III

MICRO CENTRIFUGE

PARAMETER / FEATURE	THRESHOLD LIMIT / RANGE
SPEED RANGE IN RPM	15000 OR MORE
MAX RCF X G	21000 OR MORE
TIMER	10 SEC TO 99 HR
CAPACITY FOR EACH TUBES IN ML	1.5
NUMBER OF SAMPLE TUBES CAN BE LOADED AT A TIME	24 OR MORE
NOISE LEVEL MAXIMUM IN DB	60 OR LESS
MUST HAVE SPECIFICATION	
LID WITH SAFETY LOCK CAPACITY	
REGULATOR FOR SPEED CHANGE	
LED DISPLAY	
METALLIC ROTORS TYPE: FIXED ANGLE	
SHOULD SUPPLY REDUCTION ADAPTOR FOR 0.2, 0.4, 0.5 ML (24 NOS. EACH)	
ELECTRICAL SAFETY AND QUALITY CERTIFICATION	
STANDARD AND SAFETY CERTIFICATION: EUROPEAN CE / US FDA	

Schedule - IV

100 mA X-RAY :

PARAMETER/ FEATURE	THRESHOLD LIMIT/ RANGE
Generator	
Frequency in KHZ	100 or more
Output in KW	4 or more
KV range	40 to100
mA range	upto 100
mAs	200 or more

X-ray tube	
Anode focal spot size in mm	2.8 × 2.8 or less
Operating voltage range in Volt	190- 240
Current in Amp	15
MUST HAVE SPECIFICATION	
PARAMETER/ FEATURE	YES/ NO
Operational Requirements	
Compact, lightweight, easily transportable, mobile unit	
Effective Braking system for parking and transport	
Spring balanced tube stand	
Tube head rotate in all direction	
High frequency (not biphasic)	
Digital display of KV& mAs	
Exposure with remote controlled hand switch (Wired or Remote)	
Cassette storage facility for all size of cassettes	
Consummable-X ray films are not proprietary to the company supplying X ray machine	
Generator	
Microprocessor controlled	
X Ray tube	
Stationary Anode	
Manual collimator	
LED for visualisation of Radiation field	
Auto shut off facility for Collimator	
Run on Single phase	
Accessories	
Lead Jacket-04 NOS.	
Lead Goggles-01 NOS.	
Thyroid Guard-02 NOS.	
Lead Hanger-01 NOS.	
Quality Standards & Safety Certification	
ISO	
AERB type approval	
European CE/ BIS	

Schedule - V

12 CHANNEL ECG:

Parameter/Feature	Threshold Limit/Range
ECG Waveform	12 or more
ECG Waveform printout on paper	12 or more
Paper Size	A4 or better
Paper Speed in mm/s	5, 10, 12.5, 25, 50
Amplitude (mV)	5,10
Frequency Response in Hz	(0.05 -150) or better
Display size (inch)	5 or more
Memory for patient data	350 or more
CMRR in db	100 or more
Parameter/Feature	Yes/No
Visual alarm & Audible alarm for open lead	
Digital display of 12 channel ECG	
Alphanumeric keyboard	
Built-in ECG Parameters measurements and Interpretation	
Operating modes & Print mode: Automatic, Manual and Rhythm	
Maintenance free digital thermal printer	
Printer should work with standard thermal paper (should be available in Local Market)	
12 lead ECG preview display before taking printouts and should have printer on/off selection.	
Sufficient battery backup for taking at least 50 nos. ECG on a fully charged battery	
Operate on mains(220v-50Hz) and rechargeable battery	
Defibrillation protection facility	
Digital filter for AC, muscle, drift, baseline & Low pass filter.	
Pen Drive Facility to take patient data from ECG Machine	
Standard & Safety Certification (Europeon CE and	

USFDA approved)	
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Schedule - VI

OPERATING MICROSCOPE

PARAMETER /FEATURE	THRESHOLD LIMIT / RANGE
FOCUS RANGE IN MM	48 TO 54 OR MORE
MUST HAVE SPECIFICATION	
PARAMETER /FEATURE	YES/NO
FOR OPHTHALMIC OPERATION	
QUALITY: MID HIGH LEVEL	
OPTIC CABLE FULLY APO CHROMATIC	
ILLUMINATION: LED /HALOGEN	
OBJECTIVE LENS: F = 200MM	
WIDE ANGLE PUSH-IN EYEPIECE 12.5X	
FULLY TILTABLE BINOCULAR TUBE MINIMUM 45° & MORE	
MOTORIZED ZOOM MAGNIFICATION	
WIRED FOOT CONTROL PANEL	
FLOOR STAND WITH LOCKING FACILITY	
HD CAMERA	
VIDEO RECORDING SYSTEM	
ASSISTANT MICROSCOPE WITH BEAM SPLITTER	
C-MOUNT	
FUNDUS VIEWING SYSTEM FOR POSTERIOR SEGMENT SURGERY WITH WIDE ANGLE AND NARROW ANGLE LENS OF QUALITY MANUFACTURER COMPATIBLE WITH THE MICROSCOPE	
QUALITY STANDARD AND SAFETY CERTIFICATION	
EUROPEAN CE & US FDA	

Schedule - VII

FLOW CYTOMETER :

Parameter / Feature	THRESHOLD LIMIT / Range
No. of AIR COOLED LASER	3 or more
COLOUR	8 or more
Sample LOADER capacity with tubes	30 or more
AUTO CALIBRATION for colour	8 or more
Time required to perform one test (in minutes)	30 or less
MUST HAVE SPECIFICATIONS	
Parameter /Feature	Yes / No
REAGENT type (Generic / not proprietary)	
COMPUTER, Monitor and WITH ALL NECESSARY ACCESSORIES FOR RESULT DISPLAY and colour printing	
FACILITY For ABSOLUTE COUNTS OF CELLS	
PROVISION FOR READJUSTING GATES IN REAL TIME	
PROVISION FOR READJUSTING STATISTICS IN REAL TIME	
COMPATIBILITY WITH LIS	
ADDITIONAL 3 YEARS WARRANTY (i.e., TOTAL OF 5 YEARS WARRANTY)	
ONLINE UPS (30 MINUTES BACKUP) OF APPROPRIATE CAPACITY FOR THE ENTIRE SYSTEM (INDICATIVE MAKE: APC/LUMINOUS/EMMERSION/MICROTEK/AVO/EXIDE)	
SHOULD SUPPLY REAGENTS (BASIC PANEL) : AML-100 TEST, CLPD – 100 TESTS, ALL- 100 TESTS	
Standard & SAFETY Certification	
US FDA and European CE	

Schedule - VIII

EEG 32 CHANNEL:

Parameter / Feature	THRESHOLD LIMIT/Range
Sensitivity in uV / mm	(1 to 100) or more
Frequency of Notch Filter in Hz	50 or more
Input impedance in M ohm	10 or more
Recording facility in Hrs	24 or more
A/D Conversion (in bits)	16 or more
Page view time in Sec	(1 to 10) or more
MUST HAVE	
Parameter / Feature	Yes / No
Impedance check through software and accusation box	
Low filter and High filter	
Facility to save patient result	
Digital head box	
Online/offline reformation	
Auto focus camera	
Facility of storage of patient's data along with video on CD and USB	
Capability of data storage in Hard Disk (1 TB)	
Page forward and backward system	
Facility of optical isolation of head box	
Grid facility	
Choice of multiple reference	
Capability of taking record in ICU	
Facility of external event marker	
Report Print facility	
Facility to measure amplitude and time duration	
Facility for analysis of data	

Facility to change channels	
Synchronized video and EEG data	
Facility of scrolling	
Dedicated computer with latest windows base operating system with all necessary software	
Head cap (Adult-1 no and Paediatric-1 no), EEG paste-1200 gm, EEG electrode- 50 nos,	
Should supply colour printer for printing of graphics and reports in A4 size paper facility	
Online UPS (30 minutes backup) of appropriate capacity for the entire system	
Selected bidder should construct necessary proper earthing at the space identified by the authority	
Electrical Safety and Quality Certification	
US FDA approved and European CE certified	

Schedule - IX

EMG / NCV / VEP / BERA MACHINE:

Parameter	Threshold Limit / Range
No. of channel	4 or more
Sensitivity range in $\mu\text{V}/\text{div}$	(0.1 - 500) or more
Sensitivity range in mV/div	(1 - 20) or more
Sweep speed ms/div in steps	(1 - 800) or more
Input impedance in M ohms	100 or more
Noise in μV RMS	0.5 or more
Average (BAER) Per channel	2000 or more
Electrical range in mA	(0 - 100) or more
Duration of electrical stimulation in ms	(0.02 - 1.0) or more
Repetition rate of electrical stimulation in per second	(0.5 - 30) or more
Auditory Frequency in Hz	(250 - 8000) or more
White noise Contralateral masking in dB normal hearing level	0 - 80

Intensity of click stimulation in dB normal hearing level	(0 - 110) or more
Intensity of click stimulation in dB Standard Pressure Level	(30 - 140) or more
A/D Converter in bits	16 or more
MUST HAVE	
OS Platform (windows 7 / WINDOWS 8 / XP)	
High cut and low cut filter	
Impedence check	
simultaneous acquisition in all 4 channels during EMG test	
Sweep speed and sensitivity can be changed after acquisition	
Screen separator for viewing M and F or H waves side by side	
User programmable rates for all stimulator	
Speaker sound can be stored and can be played on a multimedia	
Split screen facility	
Facility of reviewing EMG data with raster	
F wave separator	
Pediatric shock stimulator	
LED GOGGLES & FLASH	
EMG trigger	
Electrical Stimulator	
Adult and pediatric Headphone	
Auditory stimulus	
Video monitor facility for changing checker board size	
Facility of flash mode	
Facility of setting	
Facility of averaging	
Facility of latency intensity graph	
List of muscles for easy selection	
Facility of online guide to locate various muscles and nerves	

Click duration in 100 μ s square wave	
Square size of 2 to 32	
13 difference check sizes to be viewed in 16 difference field	
H Reflex, Blink Reflex Facility	
Repetitive Stimulation	
Necessary trolley	
Online UPS (30 minutes backup) of appropriate capacity for the entire system	
Surface electrode – 10 pair	
Stimulating bar electrode and felt stimulation pads – 1 no.	
Ring electrode – 2 pair	
Ground electrode with cable (paediatric) – 1 nos	
Ground electrode with cable (adult) – 1 nos	
Disposable concentric needle electrode – 25 pcs.	
Adapter for needle electrode connection – 1 no.	
Adaprer for disposable electrodes connection with Alligator clip (20cm) – 2 pcs.	
Jumper Electrode (Pump-jack linker) – 4 pcs.	
Skin Preparation gel – 10 nos.	
Conductive paste – 10 nos.	
Selected bidder should construct necessary proper earthing at the space identified by the authority	
Should supply colour printer for printing of graphics and reports in A4 size paper facility	
Quality Standard and Safety Certification	
US FDA and European CE	

Schedule - X

OCT MACHINE :

PARAMETER / FEATURE	THRESHOLD LIMIT / RANGE
PICTURE ANGLE IN DEGREE	45/30 OR EQUIVALENT
SCAN SPEED IN SECOND	40000-50000
LATERAL RESOLUTION IN μM	10-20
IN DEPTH RESOLUTION IN μM	4-6
MUST HAVE SPECIFICATION	
PARAMETER / FEATURE	YES / NO
SPECTRAL DOMAIN 3D OCT WITH LIVE SLO/CSLO/FUNDUS CAMERA	
INTERNAL FIXATION MATRIX LCD/EXTERNAL FIXATION	
MANUAL / AUTO ALIGN, FOCUS & CAPTURE	
MEASUREMENT & TOMOGRAPHY OF OPTIC NERVE AND MACULA IN SINGLE SCAN	
ANTERIOR SEGMENT TOMOGRAPHY (ANGLE,SCLERA & CORNEA)	
ENHANCED DEPTH IMAGING (CHOROIDAL)	
FAST TRAC MECHANISM	
TRANSVERSE SECTION / ENFACE VIEW	
WORK STATION ALONG WITH UPS SUITABLE FOR THE INSTRUMENTS	
QUALITY STANDARD AND SAFETY CERTIFICATION	
EUROPEAN CE & US FDA	

Schedule - XI

VIDEO ENDOSCOPE:

Parameter /Feature	THRESHOLD LIMIT/RANGE
HD GASTROVIDEOSCOPE	
FIELD OF VIEW	140° OR MORE
DEPTH OF FIELD IN MM	(2-100) OR MORE
TIP DEFLECTION UP/DOWN IN DEG	210/90 OR MORE
TIP DEFLECTION LEFT/RIGHT IN DEG	100/100 OR MORE
RIGID DISTAL DIAMETER IN MM	9.2 OR LESS
INSERTION TUBE DIAMETER	9.2 mm OR LESS
INSTRUMENT CHANNEL	2.8 mm OR MORE
WORKING LENGTH	1030 mm OR MORE
TOTAL LENGTH	1350 mm OR MORE
HD VIDEO COLONOVIDEOSCOPE	
FIELD OF VIEW	140° OR MORE
DEPTH OF FIELD	2-100 mm OR MORE
TIP DEFLECTION UP/DOWN IN DEG	180/180 OR MORE
TIP DEFLECTION LEFT/RIGHT IN DEG	160/160 OR MORE
RIGID DISTAL DIAMETER IN MM	13 OR LESS
INSERTION TUBE DIAMETER IN MM	13 OR LESS
INSTRUMENT CHANNEL IN MM	3.7 OR MORE
WORKING LENGTH IN MM	1680 OR MORE
TOTAL LENGTH IN MM	2000 OR MORE
DUODENOVideoscope	
DIRECTION OF VIEW: BACKWARD SIDE	5° OR MORE
OUTER DIAMETER IN MM	13.7 OR LESS
CHANNEL DIAMETER IN MM	4.2 OR MORE
INSERTION TUBE LENGTH IN MM	1240 OR MORE
FIELD OF VIEW	100° OR MORE
DEPTH OF FIELD IN MM	(5-60) OR MORE

ANGULATIONS UP/DOWN	120°/90° OR MORE
ANGULATIONS RIGHT/LEFT	110°/90° OR MORE
VISIBLE DISTANCE	10 mm OR MORE
LIGHT SOURCE CUM VIDEO PROCESSOR	
COMPATIBILITY WITH INPUT VOLTAGE	(220 - 240) OR MORE
HD MEDICAL GRADE MONITOR SIZE IN INCH	21 OR MORE
MUST HAVE SPECIFICATIONS	
Parameter / Feature	Yes /No
HIGH DEFINITION GASTROVIDEOSCOPE	
LIGHT SOURCE: 300W XENON WITH EMERGENCY BACKUP	
FULLY IMMERSIBLE IN DISINFECTANT SOLUTION	
BUILT IN HD TV COMPATIBLE CCD WITH CLOSE FOCUS OBSERVATION CAPACITY	
SUITABLE FOR OPTICALLY ENHANCED CHROMO ENDOSCOPY	
HD VIDEO COLONOVIDEOSCOPE	
FULLY IMMERSIBLE IN DISINFECTANT SOLUTION	
BUILT IN HD TV COMPATIBLE CCD WITH CLOSE FOCUS OBSERVATION CAPACITY	
SUITABLE FOR OPTICALLY ENHANCED CHROMO ENDOSCOPY	
DUODENOVideoscope	
SUITABLE FOR OPTICALLY ENHANCED CHROMO ENDOSCOPY	
LIGHT SOURCE CUM VIDEO PROCESSOR	
INTEGRATED WITH LIGHT SOURCE	
SUITABLE FOR OPTICALLY ENHANCED CHROMO ENDOSCOPY	
Additional Xenon lamp-2 nos., Trolley, Recording Software	
Cabinet for hanging of 3 scope	
Quality Standard and Safety Certification	
US FDA OR European CE	