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NIT No 14 /2015-2016 / Bio Medical Equipment// IGIMS/STORE

CORRIGENDUM

As only following two nos. of bio-medical equipments were published in newspaper against **NIT No 14 /2015-2016 /Bio Medical Equipment// IGIMS/STORE** under **Group – F (Department of ENT)**, prospective bidders are requested to submit their bid only for the said equipments.

- a. **Endoscopic Sinus Surgery - 1 No.**
- b. **Audiometer – 1 No.**

The technical specifications of the above-mentioned equipments would be as follows:

(a) **ENDOSCOPIC SINUS SURGERY- Qty.01**

1. **Nasal Rigid Endoscope. – One**

Straight forward telescope, 0 degree enlarged view, size: 4.0 MM

rod lenses system, Length: 18-19 cms, Autoclavable, Fiber optic light transmission incorporated.

2. **Nasal Rigid Endoscope. – One**

Forward oblique 30 degree enlarged view, size: 4.0 MM rod lenses system, Length: 18- 19 cms, Autoclavable, Fiber optic light transmission incorporated.

3. **Nasal Rigid Endoscope. – One**

Wide Angle Lateral Telescope 70°, enlarged view, size: 4.0 MM

rod lenses system, Length: 18- 19 cms, Autoclavable, Fiber optic light transmission incorporated.

4. **Holder – one each**

Telescope Handle, flat, standard model, length 11 cm, for use with Straight Forward Telescopes 0° with diameter 4 mm and length 18 cm

Telescope Handle, flat, standard model, length 11 cm, for use with Straight Forward Telescopes 0° with diameter 4 mm and length 18 cm

5. **Laryngoscope (with handle). – One**

Tele-Laryngoscope, with integrated Lateral Telescope 70°, angle of view 50°, Rod Lenses System diameter 5.8 mm, length 19 cm, autoclavable. Fiber optic light transmission incorporated including one Handle, for use with Tele-Laryngoscope.

6. **High Definition Endoscopic Camera with Endoscopic Image Processor – one**

Full High Definition Endoscopic Camera with integrated, innovative visualization technology for surgery/video endoscopy by shifting the color spectrum and via homogeneous illumination and contrast enhancement.

The system should be truly Digital HDTV endoscopic video camera. The system should have the maximum Resolution of 1920 X 1080 pixels, progressive scan and the consistent use of 16: 9 formats for Input & Output to guarantee genuine HDTV.

The system should have Special Features:

- Visibly Improved Imaging: CCD sensing chip should optimize image quality & Digital Source Sampling thus maximizing hi-fidelity image transmission.
- **Optimizes to Any Size: The system should have** Optical Zoom with 2x parfocal zoom lens to enhance the quality of Image size & cross specialty standardization of the camera system, regardless of the telescope used.
- **Plug and Go:** The system should automatically optimize all settings. The system should be ready-to-use as soon as it is connected to the camera control unit.
- **Color Spectrum:** Compatible with systems with integrated, innovative visualization technology for surgery/ Video endoscopy by shifting the color spectrum and via homogeneous illumination and contrast enhancement.
- **USB Port for Capturing FULL HD Videos/ HDStill Pictures:** Captured digital images in format 16:9 can be displayed on WideView monitors in the same full HD format without being converted. This prevents a loss of image quality caused by image stretching.
- Integrated digital imaging processing module for a 5 level brightness regulation and 2 electronic anti-moirée filter for fiberscopes.
- Parallel live display of visualization modes besides white light mode (picture-in-picture).
- Up to three different camera modules can be connected to the FULL HD video processor module.
- Side-by-side live display of visualization mode next to white light image (picture-in-picture).
- Integrated picture-in-picture mode of two different camera modules in five different display sizes available.
- Primary and secondary signal source change in picture-in-picture mode can be performed easily via camera head button.
- In combination with a compatible three-chip FULL HD camera head the following modes can be activated without special light sources or filters:
 - Color inversion by spectral color shift.
 - Brightening of dark areas in the endoscopic image.
 - Dynamic contrast enhancement.
- Changes in visualization modes, device control, digital zoom, brightness, video capture, still image capture and direct print orders, picture-in-picture mode, image direction, white balance and setup settings can be performed in sterile area via camera head buttons.
- Backward compatible with selected existing three-chip FULL HD camera heads.
- Short learning curve due to familiar handling, short starting time and customizable parameter adjustment.
- Grid and pointer can be displayed for improved orientation and communication during surgery.
- Grid and pointer can be displayed individually and together.
- 2 x digital zoom, adjustable in 5 levels.
- Possibility of 180° image rotation.
- Possibility of vertical and horizontal image mirroring.
- Storage of up to 20 individual presets.
- Storage of up to 20 individual patient data.
- System overview is individually configurable and setup status can be directly displayed with intelligent icons.
- Parameter setup can be adjusted during surgery.
- Number of menu icons can be customized individually for optimal system adjustment for the user.
- Modular design: Digital FULL HD camera module should be compatible for use with video flexible endoscopes.

Camera system should be compatible with Communication Bus system for remote controlled operation of the various features of the camera along with other equipment like digital light source and Insufflators.

Technical Specifications:

Image sensor:	3X1/3" CCD-Chip.
Pixels	1920 x 1080
AGC:	Microprocessor controlled
Lens:	Integrated Zoom Lens f = 15-31 mm (2x optical zoom)
Minimum light sensitivity:	1.17 Lux (f = 1.4 mm).
Control buttons:	3 (2 of them freely programmable).
Video output:	2 x DVI-D output, 1 x 3G-SDI output, 3 x camera input for communication with compatible camera modules, LAN connection, 4 x USB connection (2 x front, 2 x back).
Input:	Keyboard input for character generator. 5-pole DIN socket.
Power Supply:-	100-240 VAC 50/60 Hz
Certified to :	IEC 601-1, 601-2-18, CSA 22.2 No. 601, UL 2601 and CE according to MDD, protection class1/CF

7. Monitor – one

The monitor should have:

HDTV display in original 16: 9 HDTV format.

1080 p/ 50 & 1080 p/60 displays possible.

LED crystal display.

Max. Resolution of 1920X1080.

Screen diagonal – 26" / 27"

Desk top with pedestal.

Should have the facility of PIP mode.

Specifications

HD TFT Flat Screen Monitor with stand size 26",

Aspect Ratio 16:9 HD format

Brightness: 500 cd/m²

Maximum viewing angle : 178° vertical

Contrast ratio: 1400 : 1

Reaction Time – 8ms

Rated power : 115 watts

Power Supply 100-240 VAC

Screen Dimensions : 643 x 396 x 87mm

Video Inputs : 2* DVI-D , 2* 3G SDI, 1* S Video , Composite 1* RGB/VGA , 1* RS 232 , 1* RJ 45 Interface

Output: 1* DVI , 1* 3G SDI, 1* S-Video

Accessories External 24VDC Power Supply, Mains Cord, Pedestal.

Certified to : EN 60601-1, protection class IPX 1

8. Light Source - one

High intensity Xenon light source with spare Xenon lamp

SPECIAL FEATURES:

High light intensity with 300watt Xenon Lamp.

High colour temperature – more than 6000 K corresponds to brightness of sunlight resulting in high visual and photographic clarity for colour retention.

Monitoring of lamp function.

UNIT SHOULD BE COMPATIBLE WITH COMMUNICATION COMPUTER SYSTEM FOR REMOTE CONTROLLED OPERATION OF THE VARIOUS FEATURES ALONG WITH OTHER EQUIPMENT. SO AS TO FUNCTION AS AN INTEGRAL PART OF THE DIGITALLY CONTROLLED OPERATING ROOM UNDER THE COMMAND OF THE OPERATING SURGEON.

TECHNICAL SPECIFICATIONS:

Lamp type - Xenon lamp, 300 watt

Colour temperature - approx. 6000 K

Light outlets - 1

Light intensity adjustment - continuously adjustable from 0 to 100% either manually or Automatically by the camera video-output signal.

Certified to - IEC 601– 1, CE label according to MDD, protection class 1/BF

9. Fiber Optic Cable – one

Thickness 4.8mm Length 300 cm. Extremely heat resistant.

10. FESS Device Carrying Trolley

- a. Made of Stainless Steel / Epoxy coated metal.
- b. Portable on 4 antistatic dual castors, 2 with locking brakes.
- c. Required number of shelves for housing all the units of the set.
- d. One drawer unit with lock and key.
- e. Cable Manager.

- f. Power box with concealed wiring for providing electrical connections of proper rating to all the units.

ALL THE ABOVE ITEMS PREFERABLY BE FROM THE SAME MANUFACTURING COMPANY FOR BETTER SYSTEM COMPATIBILITY AND THE CORE ITEMS LIKE TELESCOPES, CAMERA SYSTEM AND LIGHT SOURCE WITH CABLE SHOULD BE USFDA APPROVED.

- **Manufactured, designed, developed and marketed under FDA/European CE certification**

(b) **TECHNICAL SPECIFICATION OF AUDIOMETER**

Channels : Two Independent Channels

Pure Tone – Frequency Range:

Channels 1 and 2: Air Conduction: 125 Hz to 12,000 Hz

High Frequency: 8,000 Hz to 20,000 Hz (8 kHz, 9 kHz, 10 kHz, 11.2 kHz, 12.5 kHz, 14 kHz, 16 kHz, 18 kHz and 20 kHz)

Full Frequency Range: 125 Hz to 20,000 Hz

Bone Conduction: 250 Hz to 8,000 Hz

Sound Field: 125 Hz to 8,000 Hz

Paired Inserts: 125 Hz to 8,000 Hz

Frequency Accuracy: $\pm 1\%$

Total Harmonic Distortion:

< 2% (earphones and paired insert phones)

< 5% (bone vibrator)

Intensity Range:

Air Conduction (TDH 50P): -10 dB HL to 120 dB HL): -10 dB HL to 120 dB HL

High Frequency: -20 dB HL to 100 dB HL

Bone Conduction:

- Mastoid: -10 dB HL to 75 dB HL or more

- Forehead: -10 dB HL to 70 dB HL or more

Sound Field:

-10 dB HL to 85 dB HL or more (basic speakers)

-10 dB HL to 95 dB HL or more (high performance speakers)

-10 dB HL to 100 dB HL or more (high performance speakers and external booster amplifier)

Paired Inserts: -10 dB HL to 110 dB HL

Masking Intensity Range (Calibrated in effective masking)

Narrow Band Noise: Maximum dB HL is 15 dB below tone

White Noise: Maximum dB HL is 30 dB below tone

Signal Format:

Steady: Tone continuously present.

Pulsed: Tone pulsed 200 msec ON, 200 msec OFF

FM: Modulation Rate: 5 Hz, Modulation depth $\pm 5\%$

Pulsed/FM: Pulsed and Modulated

Paediatric Noise and Paediatric Noise Pulsed

Speech – Channels 1 and 2:

Microphone: For live voice testing and communications

INT/EXT A & INT/EXT B: Can be utilized for internal wave files or recorded speech material from an external digital device

Intensity Range:

Air Conduction: -10 dB HL to 100 dB HL for TDH 50P

Bone Conduction

Mastoid: -10 dB HL to 50 dB HL or more

Forehead: -10 dB HL to 35 dB HL or more

Sound Field: -10 dB HL to 80 dB HL or more

Paired Inserts: -10 dB HL to 95 dB HL or more

Masking Intensity Range:

Speech Noise:

Air Conduction: -10 dB HL to 95 dB HL (TDH 50P)

Bone Conduction:

-10 dB HL to 50 dB HL (mastoid) or more

-10 dB HL to 35 dB HL (forehead) or more

Sound Field: -10 dB HL to 80 dB HL or more

White Noise:

Air Conduction: -10 dB HL to 95 dB HL (TDH 50P)

Bone Conduction:

-10 dB HL to 50 dB HL (mastoid)

-10 dB HL to 35 dB HL (forehead)

Sound Field: -10 dB HL to 80 dB HL

Special Tests:

ABLB or Fowler: Tone alternating between Channel 1 and Channel 2: Channel 1 is 400 msec ON, 400 msec OFF followed by Channel 2, 400 msec ON, 400 msec OFF.

SISI: An intensity increment is added to a tone in the selected channel for 200 msec, every 5 seconds. The HL increments are in 1, 2 or 5 dB.

High Frequency: Pure tone testing in the frequency range of 8,000 Hz to 20,000 Hz using circum-aural headphones.

TEN: TEN masking noise will be presented to the test ear. Pure tone stimuli between 500 Hz and 4000 Hz may be used at 1, 2, or 5 dB increments to obtain TEN thresholds.

Quick-SIN: Six (6) sentences with five (5) key words per sentence are presented in four-talker babble noise. The sentences are presented at pre-recorded signal-to-noise ratios. The SNR's used are 25, 20, 15, 10, 5, and 0.

BKB-SIN: contains 18 List Paris. The sentences are presented at prerecorded signal-to-noise ratios that decrease in 3-dB steps. Each list in the pair is individually scored, and the results of the two lists are averages to obtain the List Pair score. Results are compared to normative data to obtain the SNR Loss.

PC Enabled/Stand Alone;

Transfer data to connected PC with an E-Record Solution Software

Print complete report directly to a compatible USB printer

Special Tests (user defined):

MLB

Lombard test

Pure Tone Stenger

Speech Stenger

SAL

Doerfler - Stewart Test

Communications and Monitoring;

Talk Forward: Permits the tester to speak through the test microphone into the selected transducer at approximately the intensity level set by the front panel controls.

Talk Back: Allows the tester to listen to comments from the patient in the testing booth.

Monitor: The monitor headset or monitor speaker built into the instrument housing can be used by the tester to listen to Channel 1, Channel 2, Aux intercom, and/or Talk Back signals.

Aux Intercom: The built-in Auxiliary Intercom and Assistant headset allows the tester to speak directly to an Assistant without the patient hearing the conversation and allows the assistant to hear what is being presented to the patient.

On-Board VRA Control: The built-in VRA controls facilitate fast and simple activation of VRA systems.

Optional Accessories

Wireless keyboard and mouse

Gooseneck microphone

- **Manufactured, designed, developed and marketed under FDA/European CE certification**

Sd/-
Store Officer,
I.G.I.M.S. – Patna.