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| C:\Users\BMSICL\Desktop\bmsicl_logo.jpg | **Bihar Medical Services & Infrastructure Corporation Limited 4th floor State Building Construction Corporation Limited. Hospital Road, Shastri Nagar, Patna 800023, Phone/Fax: +91612 2283287,+ 91612 2283288** |
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**Corrigendum-II**

Bihar Medical Services and Infrastructure Corporation Limited (BMSICL) had invited E-Bids from the interested parties for the procurement, rate contract and the supply of medical equipment for different Govt. Medical Colleges and Hospitals of Bihar vide Notice Inviting Tender No.-BMSICL/2019-20/ME-164. A TSC meeting was held on 10.02.2020. In the meeting some technical specification amendments have been made as per the Annexure-I of this corrigendum. In order to facilitate maximum participation of bidders the tender schedule is being revised as follows:-

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| Tender Reference No.  | **BMSICL/2019-20/ME-164** |
| Date and time for downloading of bid document  | **Up to 26th February 2020 till 17:00 Hrs.**  |
| Last date and time of submission of online bids | **27th February 2020 till 17:00 Hrs.**  |
| Last date and time of submission of original documents of EMD, Tender Fee and Document. | **28th February 2020 till 14:00 Hrs.**  |
| Date, Time and Place of opening of Technical Bid | **28th February 2020 (at 15:00 Hrs.) on the website of** [**www.eproc.bihar.gov.in**](http://www.eproc.bihar.gov.in/)**in the office of BMSICL**  |
| Date and time of opening of financial Bids  | **To be announced later on www.eproc.bihar.gov.in**  |

**Note:-**Please refer to the **Annexure-I** of this corrigendum before submission of bid.

 **Sd/-**

**GM (Procurement)**

 **BMSICL**

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| **Annexure-I** |
| **Name of Equipment -Laproscope with Hand Instrument**  |
| **Sl no.**  | **Technical Specification before amendments** | **Technical Specification after amendments**  |
|   | **Suction Irrigation unit Compact** |   |
| 1 | It shall be a combination of suction/irrigation pump for use in gynecological, laproscopec and other endoscopic interventions. The adaptation to the correct mode of surgery intended should happen automatically when the correct type of tubing is used. The insertion of pressure lines in to the unit should be simplified for ease of use. The unit should be equipped with electronic, safety circuits that cut the suction/irrigation operation if the unit departs consistently form the present values. | It shall be a combination of suction/irrigation pump for use in gynecological, laproscopec and other endoscopic interventions. The adaptation to the correct mode of surgery intended should happen automatically and Manually when the correct type of tubing is used. The insertion of pressure lines in to the unit should be simplified for ease of use. The unit should be equipped with electronic, safety circuits that cut the suction/irrigation operation if the unit departs consistently form the present values. |
| 2 | The suction/irrigation unit should have the following features: | No Change |
| 3 | It is compatible with the management system and can thus be controlled from inside the sterile area via Touch screen and from outside the sterile area via keyboard and mouse available at the Nurse station. | Deleted |
| 4 | Easy to user bundle controls for the control of all functionalities. | No Change |
| 5 | Touch controls and digital displays ensure safe and precise adjustment of the set values. | No Change |
| 6 | Bargraph displays, easy to read and arranged clearly parallel to one another allow the user to monitor the current actual and set values of all unit parameters at any time. | Deleted |
| 7 | During power – up, all system go through and automatic self- test and are only released after a positive result | No Change |
| 8 | Safety functions that control any departure from operator settings. | No Change |
| 9 | Automatic recognition of type of procedure intended, when tubing is inserted. | No Change |
| 10 | Audible alarms in case of malfunction. | No Change |
| 11 | Suction rate preselect are saved in memory. | No Change |
| 12 | Should have a suction mode that automatically maintains irrigation pressure and flow constant. | No Change |
| 13 | The suction/ lrrigation unit should have the following technical specifications: | No Change |
| 14 | Power Supply voltage : 100-240 VAC | No Change |
| 15 | Power frequency: 50-60 Hz | No Change |
| 16 | Operating conditions: +100c to +400c | No Change |
| 17 | Lrrigation: | No Change |
| 18 | Pressure: - Selectable Mode 0.200&0.400 mmHg | No Change |
| 19 | Flow Rate – Selectable Mode 0-500 &0-1000ml/min | No Change |
| 20 | Suction under-pressure: | No Change |
| 21 | -Selectable Mode :0- (-)0.8 bar (80kpa) | No Change |
| 22 | Pressure indicator Bargraph Display and Digital Display | Pressure indicator Digital Display |
| 23 | Flow indicatoBargraph Display and Digital Display | Flow indicator Digital Display |
| 24 | Certified to IEC 60601.1, CAN/CSA 22.2 No. 601.1-M90: | No Change |
| 25 | Type of protection against electrical shocks shocks: protection class1 | No Change |
| 26 | Degree of protection against electrical shocks: Applied part of type BF | No Change |
| 27 | Type of protection against moisture : drip-water protection as per IPX 1. | No Change |
| 28 | Us FDA/ European CE (Issued by a notified body) approved Model should be offered. | No Change |
|   | **2. ELECTRONIC CO2 lnsufflator with Gas heating & highest degree of patient safety. (2 Nos)** | **ELECTRONIC CO2 lnsufflator (1 Nos)** |
|   | It should have following features:- |   |
|   | Heating insufflation tube for heating the Co2 gas up to patient body temperature. | No Change |
|   | Innovative sensitive mode for sensitive area such as pediatric application with safety limits in the pressure up to maximum 15 mmhg and flow range up to maximum 15l/min. | No Change |
|   | High flow mode with flow performance up to 50l/min. | High flow mode with flow performance up to 45 litre/min or more. |
|   | Individually programmable procedure list for starting device with personal presets. | No Change |
|   | Easy and intuitive use with user friendly colour touch screen for easy and precise setting of set values for pressure and flow and of insufflation mode , as well as for clear display of corresponding set values and actual values. | No Change |
|   | Optical and acoustic alarm signals in the event of patient overpressure. | No Change |
|   | Fully automatic electronically controlled gas refill. | No Change |
|   | Safety system:- constant monitoring of intra abdominal pressure, any overpressure is reduced immediately. | No Change |
|   | Applicable for use in laproscopy, in Thoracoscopy in proctology ( forTransanal Endoscopic operationals) and for endoscopy of the upper and lower gastrointestinal trac, as well as in cardiac surgery (open or endoscopically assisted cardiac surgery to assure an optional air extrusion and minimizing risk of postoperative wound infection- for minimally invasive cardiac surgery e.g. mitral valve surgery) and in vascular surgery( Endoscopic vessel harvesting) | No Change |
|   | Control via Realistic user interface. | No Change |
|   | Should be supplied with smoke evacuation unit. | No Change |
|   | US FDA /.European CE (Issued by a notified body) approved Model should be offered. | No Change |
|   | Technical Specifications:-  | No Change |
|   | Gas flow 0.50l/min | No Change |
|   | Pressure 0.30 mmHg( 4000pa) | No Change |
|   | High flow mode (0 to 50l/min) | No Change |
|   | Sensitive mode pressure 15 mmhg& flow sensitive application. | No Change |
|   | Electronic control and colour touch screen. | No Change |
|   | Following data are displayed on touch screen. | No Change |
|   | Set value pressure (0.30mmHg) | No Change |
|   | Current patient pressure. | No Change |
|   | Set value pressure (0.30 mmHg)  | No Change |
|   | Current patient pressure | No Change |
|   | Set value gas flow (0.50l/min)  | No Change |
|   | Current gas flow | No Change |
|   | Gas Consumption (0.999 l) | No Change |
|   | Status of gas heating | No Change |
|   | Power supply 220 VAC 50 Hz | No Change |
|   | **HIGH DEFINITION CAMERA SYSTEM** | No Change |
|   | 1) **4 k Camera system and all compatible instrument with 4K system** | No Change |
|   | The system should be truly Digital HD TV endoscopic video camera. The system should have the maximum Resolution of 3840 X 2160 pixels. Progressive scan and the consistent use of 16 9 formats for input & output to guarantee genuine HDTV | The system should be truly Digital 4K endoscopic video camera. The system should have the maximum Resolution of 3840 X 2160 pixels. Progressive scan and the consistent use of 16 9 formats for input & output to guarantee genuine 4K. |
|   | The system should have facility of optical & Digital Zoom lens to enhance the quality of image size and cross specialty usage of the camera system, regardless of the telescope uses. | No Change |
|   | USB port for capturing FULL HD video/HD stills in External USB drive and direct interface of USB recording device from the camera head. | No Change |
|   | System should have facility to offer various visualization modes for surgery and diagnosis by shifting the color spectrum like BLUE & GREEN light for recognition of the finest tissue structures and their differentiation. | Deleted |
|   | Parallel live display of visualization modes besides white light mode ( picture in picture) | Deleted |
|   | Modular design: Digital FULL HD camera module should be compatible for use with video flexible GI endoscope. | Deleted |
|   | **Technical Specifications:** |   |
|   | Image sensor: 3 X 1/3’CCD chip. | Image sensor: 3 X 1/3’CCD chip or 1/2.8" Progressive Scan CMOS Ultra- Hiaht Definition |
|   | Pixel: 3840 X 2160 | No Change |
|   | AGC: Microprocessor controlled. | No Change |
|   | Lens:-Integrated Zoom lens f=15-31 ( 2 x optical zoom) | Lens:-Integrated Zoom lens (Optional) f=15-31 ( 2 x optical zoom) |
|   | Minimum light sensitivity: 1 17 Lux (f =1.4 mm) | No Change |
|   | Control buttons : 3(2 of Them freely programmable) | Control buttons : Min 3(Min 2 of Them freely programmable) |
|   | Video output : 2 x DVI-D output 1X 3 g SDI output 3x camera input for communication with compatible camer modules LAN connection 4X USB connection (2 X front, 2 x back) | Video output : 2 x DVI-D output 1X 3 g SDI output/ HDMI |
|   | Input: Keyboard input for character generator | Input: Keyboard input for character generator (Optional) |
|   | Power supply 220 VAC 50 Hz. | No Change |
|   | US FDA/ European CE (issued by a notified body) approved Model should be offered. | No Change |
|   | **3) 4k Medical Grade Monitor** |   |
|   | The monitor should have  |   |
|   | HD TV display in original 16:9 HDTV format 1080 p/50 & 1080 p/60 display possible LED crystal display. Max.Resolution of 3840 x2160. Screen diagonal -55”-58” | HD TV display in original 16:9 HDTV format 1080 p/50 & 1080 p/60 display possible LED crystal /TFT display. Max.Resolution of 3840 x2160. Screen diagonal -32" or more. |
|   | Desk top with pedestal | No Change |
|   | Should have the facility of PIP mode. | No Change |
|   | **Specification** |   |
|   | HD TFT Flat screen Monito with stand size 55”-56” | HD LED/TFT Flat screen Monito with stand size 32” or higher. |
|   | Aspect Ration 16:9 HD format | No Change |
|   | Brightness: 500 cd/m2 | No Change |
|   | Maximum viewing angle : 178” vertical. | No Change |
|   | Contrast ration : 1400:1 | No Change |
|   | Reaction Time- 8ms | No Change |
|   | Rated power: 115 watts. | No Change |
|   | Power supply 100-240 VAC | No Change |
|   | Screen Dimensions: 643 x396x 87mm | No Change |
|   | Video inputs 2\* DVI-D 3G SDI 1\* S video composite 1\*RGBNGA.1\* RS 232, 1\*RJ 45 interface. | Video inputs 2\* DVI-D 3G SDI 1\* S video composite 1\*RGBNGA.1\* RS 232, 1\*RJ 45 interface./HDMI |
|   | Output 1\* DVI, 1\* 3G SDI.1\*S-vide. | No Change |
|   | **4) LED 300 with fibre optical cable** | No Change |
|   | Lamp type: LED 15V 300 watt. | Lamp type: LED 15V 300 watt. Or Equivalents |
|   | Color Temperatures 6000DK and above. | No Change |
|   | Light intensity adjustment:- continuously adjustable either manually or automatically by cameras video output signal. | No Change |
|   | Should be supplied with Diameter 4.8mm, Length 300cm | No Change |
|   | Certified to :- IEC 601-1 & UL 544 CE According to MDD protection class 1/CF. | USFDA and CE (with a notified body) |
|   | **5) IMAGE /VIDEO RECORDING AND DATA ARCHIVING SYSTEM (4K)**  |   |
|   | State of the art user friendly Medical grade system (certified to be used in OT) offered with following features | No Change |
|   | User should have full control of the system from the sterile field via camera head buttons, optional touch screen, optional foot switch. | No Change |
|   | Parallel (Synchronic or independent ) recording of two image sources. | Deleted |
|   | Still images and videos (optional with audio) in 4K FULL HD or 3D (with optional 3D-camera system) water mark feature intelligent adaptive storage management. | Still images and videos (optional with audio) in 4K FULL HD or 3D HD (with optional 3D-camera system) water mark feature intelligent adaptive storage management. |
|   | Storage Location is freely definable and configurable. | No Change |
|   | Storage on internal memory ( 2 , TB FIFO) USB storage media via 2.0 and 3.0, optical media DVD writer, Blue-ray reader) network drive, FTP of via DICOM. | No Change |
|   | Automatic storage in the background to reduce the time between the interventions, Easy management and overview of open/automatic save processes. | No Change |
|   | Import of patient data via keyboard of DICOM work list. | No Change |
|   | Various adaptable templates for printing to choose from | No Change |
|   | Integrated surgical checklist following the WHO standard or customizable. Basic functions for the editing of still images and videos. | Deleted |
|   | Playback of 2D and 3D and 4K content on separate monitor (Optional 3 D- system required)  | Playback of HD or 4K content on separate monitor. |
|   | Integrated the file viewer for still images, videos and checking from diverse data sources. | No Change |
|   | Structured and clear user guidance, optimized for touch screen control. | No Change |
|   | Scalable range of functions: | No Change |
|   | Low noise generation and last system start due to SSD-technology. | No Change |
|   | Should have seamless USB silicone keyboard with touch pad to enter details. | Should have seamless USB silicone keyboard or touch pad to enter details. |
|   | Controllable via 12” and above unbuilt touch screen. | No Change |
|   | Input voltage :- 100-240 VAC | No Change |
|   | Input frequency : 50-60 Hz | No Change |
|   | Power output : 350 Watt. | No Change |
|   | CPU :intel core Tm -@3.4GHz | No Change |
|   |  Internal memory: SSD (70GB) I HDD (2 TB) | No Change |
|   | Memory RAM : 8GB | No Change |
|   | Conectors : 3x1 GB Ethernet (RJ 45), 6Xusb 2.0, 2x USB 3.0 | No Change |
|   | Image format: BMP,JPG,2000. | No Change |
|   | Video format MPEF-4,MPEG-2 MOV. | No Change |
|   | Video signal inputs: 2x DVI-D | No Change |
|   | Color system : PAL NTSC | No Change |
|   | Resolution still images: up to 1920 x 1080 Aspect ration 16.9 | No Change |
|   | Resolution videos: up to 1920 x 1080 Progressive scan for 25/30 frames. | No Change |
|   | Preinstalled Printer : SONY UP DR80MD | Preinstalled Printer/ Extermal printer SONY UP DR80MD or compatible printer. |
|   | Type approval ICE 60601-1-1, EN60601-1 EN60601-2 | Deleted |
|   | The DICOM 3 interface shall be installed to the system in order to allow the surgeon to view all the DICOM 3 images stored in the PACS system on a digital light box within box within the operating rooms. Furthermore , all intra operative images recorded can be sent via the DICM 3 interface to the PACS system for further processing. | No Change |
|   | **6) Endoscopic Trolley** |   |
|   | Equipment cart, rides of 4 antistatic dual wheels equipped with locking brakes, central beam with integrated electrical sub distributor switch 6 sockets grounding plugs, modular in nature ( should be able to add shelves and components later if required) | No Change |
|   | Should have central monitor holder to mount monitor with height adjustable swiveling and tilting, swivel range approx..360 degree loading capacity max. 18 kg with monitor mount VESA 75/100. | No Change |
|   | Cart should have following dimension in mm (w x h x D) | No Change |
|   | Equipment cart 830 x 1474 x730. | Deleted |
|   | Caster dimeter should be 125 mm | No Change |
|   | It should consisting of  | No Change |
|   | Base Module equipment cart | No Change |
|   | 1 x Top Cover | No Change |
|   | Beam Package, equipment cart. | No Change |
|   | 1 xshelf, size- 630 x25x 510 | Deleted |
|   | 1x Drawer unit with Lock | No Change |
|   | 1x Base plate | No Change |
|   | 1x cameraholder  | No Change |
|   | Cart should be compatible to accommodate following when required. | No Change |
|   | Atleast 4 more shelve | Deleted |
|   | Isolation transformer | No Change |
|   | Counter balance plate | No Change |
|   | C02 cylinder holder | No Change |
|   | Monitor holding arms (lateral) | No Change |
|   | USFDA /European CE (issue by a notified body) approved Model should be offered. | No Change |
|   | **Hand Instruments** |   |
|   | **Telescopes:** |   |
|   |   |   |
|   | a.       Forward- oblique Telescope 30 degree enlarged view diameter 10mm. Length 31 cm autoclavable fiber optic light transmission incorporated -02 nos. | No Change |
|   |   | No Change |
|   | b.      Forward - oblique Telescope 30 degree enlarged view diameter 5mm. Length 29 cm autoclavable fiber optic light transmission incorporated. Connection for fiber optic light cable offset by 90degree- 02 nos. | No Change |
|   |   | No Change |
|   | c.       Straight forward telescope 0 degree enlarged view diameter 100 length 31 cm autoclavable fiber optic light transmission incorporated -02 nos. | No Change |
|   | **LAPROSCOPLE DISSECTING & GRASPING FORCEPS** |   |
|   |   |   |
|   | 1. Three piece laparoscopic autoclavable KELLY dissecting and Grasping Forcep. 360 degree rotational sheeth, with connector pin for unipolar coagulation size 5 mm. length 36 cm long (02 nos.) double action jaws, with ergonomic plastic handle with larger contact area at the finger ring to avoid pressure sores, can be dismantled with the press of a button.
 | No Change |
|   | 2.      Three piece laparoscopic autoclavable CROCE-OLMI Grasping forceps360 degree rotational sheeth, size 5mm length 36cm (02nos.) double action jaws ergonomic metal handle with plastic finger rings with larger contact area at the finger ring to avoid pressure sores can be dimantied with the press of button. | No Change |
|   | 3.      Three piece laparoscopic autoclavable Bowel Gasping forceps double action jaws, fenestrated, 360 degree rotational sheeth, size 5mm length 36cm (02 nos.) double action jaws, ergonomic metal handle with plastic finger rings with larger contact area at the finger ring to avoid pressure sores, can be dismantled with the press of a button. | No Change |
|   | 4.      Three piece laparoscopic autoclavable Right Angled Dissection and GrapingForcep, double action jaws fenestrated, 360 degree rotational sheeth, size 5 mm, length 36 cm long double action jaws. Ergonomic metal handle with plastic finger rings with larger contact area at the finger ring to avoid pressure sores, can be dismantied with the press of a button (02 nos.) | No Change |
|   | 5.      Three piece laparoscopic autoclavable Right Angled Dissection and Gasping Forceps, double action jaws, fenestrated, 360 degree rotational sheeth, size 5 mm, length 36 cm. long , double action jaws, ergonomic metal handle with plastic finger rings with larger contact area at the finger ring to avoid pressure sores can be dismantled with the press of button (02 nos.) | No Change |
|   | 6.      Three piece laparoscopic autoclavable ANVIL Grasping forcep, double action jaws, fenestrated, 360 degree rotational sheeth, size 5 mm length 36 cm, long double action jaws, ergonomic metal handle with plastic finger rings with larger contact area at the finger ring to avoid pressure sores can be dismantled with the press of a button (02 nos.) | No Change |
|   | 7.      Three piece laparoscopic autoclavable MANHES Grasping forcep with hemostat style ratchet, duck bill 360 degree rotational sheeth with connector pin for unipolar coagulation size 5 mm length 36 cm, long single action jaws, ergonomic metal handle with larger contact area at the finger ring to avoid pressure sores can be dismantled with the press of a button. | No Change |
|   | 8.      Three piece laparoscopic autoclavable GLAW Grasping forcep with ratchet 2x3 teeth, 360 degree rotational sheeth size 10mm length 36 cm long single action jaws, with ergonomic metal handle can be dismantled with the press of a button (02 nos.) | No Change |
|   | Three piece laparoscopic autoclavable curved METZENBAUM scissors, 360degree rotational sheeth with connector pin for nipolar coagulation m size 5mm length 36cm long double action jaws with ergonomic plastic handle with larger contact area at the finger ring to avoid pressure sores can be dismantled with the press of a button (02 nos) | No Change |
|   | 1.      Three piece laparoscopic autoclavable Hook scissors, 360 degree rotational sheeth, withconnector pin for unipolar coagulation size 5mm length 36 cm long double action jaws with ergonomic plastic handle with larger contact area at the finger ring to avoid pressure sores, can be dismantled with the press of a button (02 nos.) | No Change |
|   | 2.      Ergonomic plastic Handle with larger contact area at the finger rings with connector pin for unipolar coagulation with or without ratchet, compatible with above asked instruments (02 nos) | No Change |
|   | 3.      Dissectin Electrode with exchangeable electrode L-tip autoclavable ergonomic handling size 5 mm length 36 cm, with connector pin for unipolar coagulation (02 nos) | No Change |
|   | 4.      Exchangeable Electrode Tip L-shaped, Autoclavable (02 nos) | No Change |
|   | 5.      Unipolar HF Cord (02 nos)  | No Change |
|   | 6.      Nathanson Liver Retractor small surface area, diameter 5mm (02nos) | No Change |
|   | 7.      Nathanson Liver Retractor Medium surface area diameter 5 mm (02nos) | No Change |
|   | 8.      Nathanson Liver Retractor large surface area diameter 6 mm-(02 nos) | No Change |
|   |   |   |
|   | 9.      Holding system autoclaveable with quick release coupling consisting of Rotation socket to clamp to the OR table, for European and Us standard rails with lateral clamp for height and angle adjustment of the articulated stand, reinforced version, L-shaped especially large swivel range with one mechanical central clamp for all five joint functions, height 46 to 48 cm, swivel range 66 to 68 cm with quick release coupling clamping jaw, metal with axial intake, ckamping range 4.8 up to 12.5 mm (02 nos) | No Change |
|   | 10.  Fascial closure instrument for subcutaneous ligature of trocar incisions, size 2.8mm length 17 cm USFDA CE approved (02 nos) | No Change |
|   | 11.  SatinskyLaproscopic clamp size of jaws 10 cm depth of jaws 2.5 cm straight sheeth with axial handle ring ratchet with safety locking device 10mm length 30cm (02 nos) | No Change |
|   | 12.  SatinskyLaproscopic clamp size of jaws 8 cm depth of jaws 2 cm straight with axial handle ring ratchet with safety locking device 10mm length 30cm (02 nos) | No Change |
|   | 13.  Vascular clamp Applicator 10mm, 32 cm for use with deployable vascular clamps (02 nos) | No Change |
|   | 14.  Vascular clamp single action jaws, length of jaws, 5cm, size 10mm, total length 11 cm for user with vascular clamp applicator (02 nos) | No Change |
|   | 15.  Vascular clamp, parallel action jaws, length of jaws 5cm size 10mm total length 13 cm for use with vascular clamp applicator. | No Change |
|   | 16.  Bowl forcep- (02 nos) | No Change |
|   | **Trocar &cannula:** |   |
|   | **1.** Cannula size: 11 mm diameter with thread and rotating insufflations, should have multifunctional valve to prevent damage of sharp instruments and tip lens while passing through the cannula valve. It should have stopcock for C02 insufflation. The working length of the cannula should be 105mm (5 nos) | No Change |
|   | **2.** Cannula size size 6 diameter with thread and rotating insufflations. Should have multifunctional valve to prevent damage of sharp instruments and tip lens while passing through the cannula valve. it should have stopcock for C02 insufflation. The working length of the cannula should be 105mm (5nos) | No Change |
|   | **1.** Cannula size: 11 mm diameter: should have multifunctional valve to prevent damage of sharp instruments and tip lens while passing through the cannula valve. It should have stopcock for C02 gas. The working length of the cannula should be 105mm (5 nos) | No Change |
|   | **2.** Cannula size: 6 mm diameter: should have multifunctional valve to prevent damage of sharp instruments and tip lens while passing through the cannula valve. It should have stopcock for C02 insufflation. Trocar should have pyramidal tip with pin holes near the tip forsafety outlet of C02 gas. The working length of the cannula should be 105mm (5 nos) | No Change |
|   | **3.** Double reducer: 13.5/10 & 13.5/5mm – (5 each) | No Change |
|   | **4.** Reducer: 11/5mm-(05nos)  | No Change |
|   | **5.** Laparoscopic High-frequency needle for splitting &congulation , puncture in PCOD, insulated with connector pin for unipolar coagulation 5mm, 36mm=02. | No Change |
|   | **6.** Knot-tier for extra-corporeal knotting , 5mm, 36cm=02 | No Change |
|   | **7.** Papation probe with cm-markings ,5mm 36cm=02 | No Change |
|   | **8.** Rotating dismantling in three parts (handle outer tube & working insert) Laparoscopic MESO-OVARAIAN forceps, with insulation handle with hemostat-type ratchet & pin connector for unipolar coagulation 5mm,36cm =02 | No Change |
|   | **9.** Laparoscopic Myoma fixation instrument screw-shaped 5mm=02. | No Change |
|   | **Veress Needle** |   |
|   | Veress pneumoperitoneum with spring loaded blunt inner cannula ,LUER-Lock autoclavable dimeter 2.1mm working length 10-18 cms(05 nos) | No Change |
|   | **Injection Needle** |   |
|   | Injection needle , LUER-lock diameter 1.2mm size 5mm length 36cm (05 nos.)  | No Change |
|   | **Suction and Irrigation Tube** |   |
|   | Suction and Irrigation tube anti-reflex surface with two-way stopcock for single hand control size-5 mm length 36cm (10 nos) | No Change |
|   | **LAPAROSCPIC NEEDLE HOLDERS** |   |
|   |  Needle holder with tungsten carbide insert dismantling in to three part namely outer tube handle and inserts, ergonomic pistol handle with disengageable ratchet jaw curved to left size 5mm length 33cm for user with suture material size 0/0 to 7/0 (06nos) | No Change |
|   | Macro needle holder with tungsten carbide insert, dismantling in to three parts namely outer tube handle and inserts, ergonomic pistol handle with disengageable ratchet jaw curved to left size 5mm length 33cm for user with suture material size 0/0 to 7/0 (06nos) | No Change |
|   | Laparoscopic Bipolar Forceps | No Change |
|   | Three piece laparoscopic Bipolar coagulating Grasping Forceps with overload tissue protection, CLERMONT –FRRRAND MODEL, wide jaws with connector pin for bipolar coagulation 360degree rotational sheeth size 5mm length 36cm long, single action jaws ergonomic plastic handle with larger contact area o can be dismantled with the press of a button (02 nos.) | No Change |
|   | Three piece laparoscopic Bipolar KELLY dissecting & Grasping Forceps with overload tissue protection, CLERMONT –FRRRAND MODEL, wide jaws with connector pin for bipolar coagulation 360degree rotational sheeth size 5mm length 36cm long, single action jaws ergonomic plastic handle with larger contact area o can be dismantled with the press of a button (02 nos.) | No Change |
|   | **Clip Applicator :05** |   |
|   | Medium Large clip applicator dismantable rotating size 100mm, length 36cm, for Titanium clips with ratchet to lock the jaw holding the clip. | No Change |
|   | **Clip Applicator :05** |   |
|   | Large clip applicator dismanteable rotating size : 10mm, length 36cm, for Titanium. | No Change |
|   | Titanium clips : 50 Boxes 24 clip each. | No Change |
|   | Titanium Clips medium large & large box with 16 sterile cartridges 10 clips eagh for use with clip applicator. | No Change |

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| **Name of Equipment -Hystoroscopy with camera System** |
| **Sl no.**  | **Technical Specification before amendments** | **Technical Specification after amendments**  |
|   | **1.Camera control unit** |   |
|   | The system should be Digital endoscopic video camera with maximum Resolution of 3840 X 2160 pixel and progressive scan to guarantee genuine 4K. | No Change |
|   |          The system should have facility of 3x Digital Zoom Lens or more | No Change |
|   |          The system should have facility for capturing 4K UHD HD Still sand FULL HD Video in Extern USB drive. | No Change |
|   |          System should have facility to offer various visualization modes for surgery and diagnosis by shifting the color spectrum like BLUE & GREEN light for recognition of the finest tissue structures and their differentiation. | Deleted |
|   |          The single stacks should be complete with all accessories so as to connect 4K, 3D, FHD, Flexible scopes, Process and display the signals in their native resolution. |   The single stacks should be complete with all accessories so as to connect 4K, FHD.Flexible scopes, Process and display the signals in their native resolution. |
|   |          Picture in Picture of visualization modes. | No Change |
|   |          Automatic adjustment of light intensity of light source. | No Change |
|   | **Technical Specifications:** |   |
|   | Pixel: 3840 X 2160 Pixels | No Change |
|   | Video output: 1Display port 1:2 x DVI –D output, 1 x12G-SDI output LAN connection 4x U connection ( 2X front 2 X back | Video output: 1Display port 1:2 x DVI –D output/ 1 x12G-SDI output/ LAN connection 4x U connection ( 2X front 2 X back/ HDMI. |
|   | Input keyboard input for character generator | Input keyboard input for character generator(Optional) |
|   | Power supply:200-240 VAC 50/60 Hz | No Change |
|   | Certified to IEC 601-1601-2-18 CSA 22.2 No. 601 UL2601 and CE according MDD protect class 1/cfdefib. | USFDA/EU CE |
|   | **2. 4k CAMERA HEAD** |   |
|   | Pixel: 3840 X 2160 Pixel | No Change |
|   | AGC Microprocessor controlled | No Change |
|   | Lens integrated Zoom Lens f =18mm | Lens integrated f=18mm-20mm |
|   | Color space: BT 2020 emulation | No Change |
|   | Control buttons: 3 (2 of them freely Programmable) | Control buttons: 3Min (Min 2 of them freely Programmable) |
|   | **3. Integrated 3D Video Scopes** | should be supplied with compatible scope for 4K camera |
|   |          Integrated video laparoscope 10mm 0 degree direction of view | Compatible 10mm 0 degree scope. |
|   |          Integrated video laparoscope 10mm 30 degree direction of view | Compatible 10mm 0 degree scope. |
|   |          Two distal Full HD image sensors with depth of focus 20-200mm, optimized for stereoscopic endoscopy | Deleted |
|   |          Slender and light design-weight should not be more than 450 gm for optimal ergonomics. | Deleted |
|   |          Should have DVI-D output for transmitting the 3D signal in 1080p format at 50/60 Hz to a 3D monitor | Deleted |
|   |          Sterilization options: Autoclavable starred ® 100S,NX,100NX steris ® system V-Pro & ETO | No Change |
|   |          Easy switching between 2D and 3 D modes. | Deleted |
|   | **4. 3D 7 4 K Monitor** | **4. 3D & 4K Monitor**  |
|   | The monitor should have  | No Change |
|   | If should have a facility to be connected to 4K and 3D or sperateMonitor should be supplied for 4K and Color space –BT 2020 emulation | No Change |
|   | Aspect ratio: 16:9 | No Change |
|   | Size-32 inch | No Change |
|   | Effective Resolution: 3840 X 2160Pixel | No Change |
|   | Inputs: 1Xdp 1.2 2XDVI-D 4 x 3G-SDI/1X 12G SDI | Inputs: 1Xdp 1.2 2XDVI-D 4 x 3G-SDI/1X 12G SDI/HDMI |
|   | Outputs: 1x DVI-D4 x 3G-SDI/1 X 12 GSDI | No Change |
|   | Certified to ANSI/AAMI ES60601-1 2005 UL 60601-1CAN/CSA C22.2 NO 60601-1 and EN 60601-1 CE label according to MDD class I | USFDA/EU CE |
|   | **5. LED Light source 300W with Fiber Optic cable** |   |
|   |          Should have touch display which provides and intuitive & user friendly interface that directly displays relevant data. | No Change |
|   |          Cold Light Fountain LED Fight source | No Change |
|   |          Lumens : 2100 and above | No Change |
|   |          Color Temperature 6000K | No Change |
|   |          Light outlets-1 | No Change |
|   |          Lamp life of approx. : 30,000 hrs. | No Change |
|   |          4.8 mm Fiber Optic Cable and 300cm Long | No Change |
|   |          Certified To: IEC 601-1 &UL 544 CE According to MDD, Protection class 1/CF | USFDA/EU CE |
|   | **6. IMAGE/ VIDEO RECORDING AND DATA ARCHIVING SYSTEM** |   |
|   |          Slate of the art user friendly Medical grade system (Certified tod be used in OT ) should be offered with following features. | No Change |
|   |          User should have full control of the system from the sterile field via camera head buttons optional touch screen optional foot switch. | No Change |
|   |          Parallel (synchronic or independent) recording of two image sources. | Deleted |
|   |          Still images and videos (optional with audio) in 2D, 3D or 4K |  Still images and videos (optional with audio) in HD /4K. |
|   |          Internal memory 2 TB | Internal memory 500GB (optional external HDD 1 TB) |
|   |          Playback of 2D, 3D and 4K content. | Playback of HD OR 4K content. |
|   | Viewable Diagonal (inches) 12.5 | Viewable Diagonal (inches) 12.5 Max. |
|   | Type approval IEC 60601-1-1 EN60601-1 EN60601-2 Classification CE MDD CSA  | USFDA/EU CE |
|   | **7. Imported Endoscopic Trolley** |   |
|   | Endoscopic Trolley compatible with the above system from the same manufacturer should be provided. | No Change |
|   | **SPECIFICATION FOR HYSTEROSCOPE SET WITH RESECTOSCOPE** |   |
|   | Operating and contact – Hysteroscope forward oblique Telescope 30 degree enlarged view magnification 1x, 60x diameter 4.0 **mm,** length 30cm autoclavable, fiber optic light transmission incorporated, Forwarded oblique Telescope 30 degree enlarged view , diameter 4.0mm, length 30cm, autoclable, fiber optic light transmission incorporated. | No Change |
|   | Forwarded oblique Telescope 30 degree enlargedview , diameter 2.9, 3.0 mmlength 30cm, autoclable, fiber optic light transmission incorporated. | Forwarded oblique Telescope 30 degree enlargedview , diameter 2.7, 3.0 mmlength 30cm, autoclable, fiber optic light transmission incorporated. |
|   | Telescope sheath for diagnostic continuous irrigation size 4.5,5.4 mm outer sheath and 3.8,3.9 mm inner sheath for user 2.0,3.0mm hysteroscope telescope. | No Change |
|   | Continuous irrigation flow operating sheath inner size between 4.9, 5.0mm and outer size between 5.5, 5.6mm having operating channel 5Fr to be used with 2.9-3.0mm telescope with LEUR lock and inflow and outflow channel | No Change |
|   | Examination sheath diameter 5.0-5.1mm to be used with 4mm telescope with 1 LUER lock adapter. | No Change |
|   | Continuous flow Examination sheath, inner size diameter 5.2-5.3 & outer dia size 6.2-6.3 mm to be used with 4mm telescope with 1 LUER lock adaptor. | No Change |
|   | Continuous flow operating sheath inner size 5.4-5.5mm &outer size 6.0-6.1mm with 5Fr. Channel for operating with 1 stopcock and 1LUER Lock adapter | No Change |
|   | Continuous Flow operating sheath inner size 5.4-5.5mm & outer size 6.0-6.1mm with 5Fr. Channel for operating with 1 stock cock and 1LUER Luck adaptor. | No Change |
|   | Scissors blunt tips 5 Fr. Length 34 cm single action jaws. | No Change |
|   | Scissors pointed jaws, 5Fr. Length 34cm single action jaws, semi-rigid. | No Change |
|   | Biopsy and Grasping forceps 5Fe. Length 34 cm double action jaws | No Change |
|   | Needle Electrode, 5Fr. Length 27cm unipolar | No Change |
|   | Bipolar vaporization electrode, 5Fr. Length 36 cm  | No Change |
|   | High Frequency cord with 4mm plug HF unit older models 300 cm | No Change |
|   | Bipolar High Frequency  | No Change |
|   | **Working Element set consisting of:** |   |
|   | 1 working element, 1 cutting Loop, angled, 1 coagulation –Electrode ball end 3cm, 1 coagulating Electrode ball end 5cm 1coagulating Needle Electrode angled 2 High Frequency cord 1 Protection tube for electrodes | No Change |
|   | Motion by means of a spring. The thumb support is movable return of the loop is controlled by the (thumb to be used with 4mm telescope) | No Change |
|   | Cutting loop 24 Fr. And Roller electrode 24Fr. 12 no. each. | No Change |
|   | **Resectoscope sheath** 26 Fr, including connection tubes for in-and outflow, 2 LUER –lock adapters 8mm oblique beak, fixed inner tube with ceramic insulation for user with working element. | No Change |
|   | **Obturator** for use with sheaths |   |
|   | Forward oblique Tele-scope 30degree 2.9mm length 30 cm autoclavable fiber optic light transmission incorporated color code red. | Forward oblique Tele-scope 30degree 2.7mm length 30 cm autoclavable fiber optic light transmission incorporated color code red. |
|   | Operating sheath size4.3mm with channel for semi rigid 5Fr. Operating instruments with 1 stopcock and 1 LUER-Lock adaptor, for use with CF operating sheath. | No Change |
|   | Continuous –Flow operating sheath size 5mm with 1 stopcock and 1LUER-Lock adaptor for use with operating sheath | No Change |
|   | Scissors blunt, single action jaws semirigid 5 Fr. Length 34 cm. | No Change |
|   | Pointed single action jaws semirigid 5Fr. 34cm | No Change |
|   | and Grasping Forceps Double action jaws semirigid 5Fr. Length 34 cm punch through cutting single action jaws semirigid 5Fr. Length 34 cm. | No Change |
|   | Biopsy spoon forceps, double action jaws semirigid 5Fr. Length 34cm. | No Change |
|   | Fixation Instrument semirigid5Fr. Length 34cm. | No Change |
|   | Polypectomy Loop unipolar 5Fr. Length 34cm. | No Change |
|   | Needle Electrode unipolar 5Fr. Length 34cm. | No Change |
|   | Bipolar Vaporization electrode semirigid5Fr. Length 36cm. | No Change |
|   | Telescope 12” o 2.9mm , length 30 cm autoclavable fiber optic light transmission incorporated, color code black. | Telescope 12” o 2.7mm , length 30 cm autoclavable fiber optic light transmission incorporated, color code black. |
|   | Resectcope sheath including connecting tube for in-and outlow for continuous irrigation and suction 0 7mm oblique beak rotable sheath with ceramic insulation for use with working element. | No Change |
|   | Resectcope sheath including connecting tube for in-and outlow for continuous irrigation and suction 0 7mm oblique beak fixed inner sheath with ceramic insulation for use with working element color code white. | No Change |
|   | Standard obturator for use with resectoscope sheaths | No Change |
|   | Telescope Bridge with channel for semirigid 5 Fr. Operating instruments for use with resectoscope sheaths. | No Change |
|   | Working Element set consisting of working Element cutting Loop angled coagulation Electrode pointed coagulating Electrode ball end 0.3mm cutting by means of a spring. The thumb support is movable in rest position the electrode tip is inside the sheath. High Frequency cord protecting Tube. | No Change |
|   | **Environmental factors** |   |
|   | 1.      Shall meet IEC -60601-1-2 2001 or Equivalent BIS) General requirements of safety for Electromagnetic compatibility or should comply with 89/366/EEC;EMC directive. | No Change |
|   | 2.      The unit shall be capable of operating continuously in ambient temperature of 20-30 degree C and relative humidity of 15-90% | No Change |
|   | 3.      The unit shall be capable of being stored continuously in ambient temperature of 0.50degree C and relative humidity of 15-90% | No Change |
|   | **Power supply** |   |
|   | 1.      Power input to be 220-240VAC ; 50Hz fitted with Indian Plug | No Change |
|   | 2.      Manufacturer should have ISO certification for quality standards. | Deleted |
|   | **Standards, safety and Training** |   |
|   | 1.      Should be FDA,CE,UL or BIS approved product | US FDA/European CE |
|   | 2.      Manufacturer should have ISO certification for quality standards. | No Change |
|   | 3.      Comprehensive training for lab staff and support services till familiarity with the system. | No Change |
|   | 4.      Comprehensive warranty for 5 years with no fault warranty in the first year and 5 years CMC after warranty including UPS. | No Change |
|   | 5.      Shall be certified to the meeting safety standard IEC 60601-2-18 particular requirements for the safety of endoscopic equipment. | No Change |
|   | 6.      All the items should be from single manufacturer for system compatibility. | No Change |
|   | **Documentation** |   |
|   | 1.      User/ Technical/Maintanance manuals to be supplied in English. | No Change |
|   | 2.      List of important spare parts and accessories with their part number and costing. | No Change |
|   | 3.      Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point, if not substantiated with authenticated catalogue/manual , will not be considered. | No Change |
|   | 4.      Certificate of calibration and inspection. | No Change |
|   | 5.      List of Equipments available for providing calibration and routine preventive maintenance support as per manufacturer documentation in service/technical manual. | No Change |
|   | 6.      Log Book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out. | No Change |