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1.	EMBALMING MACHINE	<p>No. 1/06/ADG(Med)/Vetting-Tech Specs/CRPF/645 Dtd21 Jun 2011</p>	<ol style="list-style-type: none"> 1. Fluid delivery rate should be 10 Liters / hr 2. Inner tank should capacity to store embalming fluid should be 5-10 liters and should be made of stainless steel 3. Pump: Pump should be of Electromagnetic Dosing pump with capacity of 0-5 liters per hour and with pressure 3 kg/cm² 4. The equipment should be mounted on castors for easy movement and the grip should be provided for easy lifting 5. I.V stand fixed for monitoring cannula tubing and main cable 6. Indicators for mains on & in use should be present 7. The outer body should be of complete stainless steel 8. All instruments should be USFDA or European CE approved. 9. Manufacturer should have IOS certification, where Indian standards are not available 10. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 11. Comprehensive training for technical staff and proper support services till familiarity with the system 12. User/Technical/Maintenance manuals to be supplied in English 13. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 14. The job description of the hospital technician, service engineer should clearly spelt out 	<p>Advance in technology</p> <p>To facilitate maximum manufacturer to participate in Bid process</p>
<p>High definition 4 K Digital camera- Qty 1</p>			<p>Advance in</p>	<p>Advance in</p>

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












2.	LAPAROSCOPE SURGERY SET	<p style="text-align: center;">No.E.17020/ADG(Med)/DA-3/QRS/TD/2019/1377</p> <p style="text-align: center;">Dtd 08 July 2019</p>	<p>The system should have following features</p> <ol style="list-style-type: none"> 1. Digital matrix processing technology 2. Progressive scanning system for camera 3. Special filters for chrome endoscopy 4. Universal camera head coupler 5. System capable for ICG fluoroscopy for better delineation of anatomy 6. It should have Pure digital signal with High Definition video of 1920 x 1080p (minimum) native resolution and progressive scan technology both on camera head and console 7. It should be compatible with Aspect ratio of 4:3 and 16:9 8. The system should have Digital and Optical Zoom to enhance the quality of Image size & cross specially standardization of the camera system, regardless of the telescope used. 9. Digital zoom, white balance control and two peripheral controls on camera Head 10. Integrated Gain/Shutter/Enhancement with automatic brightness control 11. Video Outputs: two DVI, one SVHS and one (optional) direct fiber optic output 12. The system should automatically optimize all settings. 13. The system should be ready to - use as soon as it is connected to the cameracontrol unit. 14. The system should be Menu driven, thus allowing the surgeon to program thecamera head functions as per the surgical needs & requirement. <p>Technical Specifications:</p> <ol style="list-style-type: none"> 1. Image System: 1/3" Progressive Scan CCD 2. Pixels 1920 X 1080p pixels per chip (min) 3. Camera Head Weight 150-250 gm. 4. AGC: Microprocessor controlled 5. Signal-to-noise ratio 65-75 dB 	<p>technology</p> <p>To facilitate maximum manufacturer to participate in Bid process</p>
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




	<ol style="list-style-type: none"> 6. Video output: S-video signal 7. Digital Video Interface 8. Power Supply 100-240 VAC, 50/60HZ <p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. Should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system. 	
	<p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out <p>HIGH RESOLUTION MONITORS- Qty 2</p> <p>The system should have:</p>	
	<ol style="list-style-type: none"> 1. HDTV display in original 16: 9 HDTV format. 2. 1080 p/ 50 & 1080 p/60 displays possible. 3. Drip water protected, dust proof housing. 4. LED crystal display. 5. Max. Resolution of 1920X1080. 6. Desktop with pedestal. 7. Should have the facility of PIP mode. 8. HD medical grade Monitor Not less than 27 inch, compatible with High Definition 4k digital camera 9. Aspect Ratio 16:9 HD format 10. Brightness : 400 cd/m2 	

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		<ol style="list-style-type: none"> 11. Maximum viewing angle : 178° vertical 12. Contrast ratio: 1000 : 1 13. Reaction Time - 8ms 14. Rated power: 115 watts 15. Power Supply 100-240 VAC 16. Screen Dimensions : 673 x 418 x 88mm 17. Video Inputs : 2* DVI , 2* 3G SDI, 1* S Video, 1* SOG, 1* RGBNGA, 1* RS232, 1* RJ 45 Interface. 18. Output: 1" DVI , 1* 3G SDI, 1* S-Video 19. Accessories External 24VDC Power Supply, Mains Cord, Pedestal. <p><u>Standard, Safety and Training:</u></p> <ol style="list-style-type: none"> 1. Should be USFDA or European CE approved. 2. Certified to : EN 60601-1, protection class IPX 1 3. Manufacturer should have IOS certification, where Indian standards are not available 4. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 5. Comprehensive training for technical staff and proper support services till familiarity with the system. <p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out <p>LED LIGHT SOURCE- Qty 1</p> <p>The system should have:</p> <ol style="list-style-type: none"> 1. Automatic and manual light adjustment 2. Colour temperature 5500-6500K 3. Life of light bulb >= 30,000 hrs 	

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


		<ol style="list-style-type: none"> 4. Universal adapter for fibre optic cable 5. Efficient cooling technology in light source. 6. Degree of protection IPx1 7. 300 W 8. 220 Volts 9. Light Engine: Red, Green & Blue LEDs 10. Increased patient safety & added protection in OR with safe light technology 11. Intuitive simple user interface with LCD touch screen 12. Standby Mode 13. Universal Jaw Assembly to adapt any make of Fiber Optic Cable 14. More than 5000 Hours bulb life 15. Light intensity adjustment continuously adjustable from 0 to 100% manually <p><u>Standard, Safety and Training:</u></p> <ol style="list-style-type: none"> 1. Should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system. <p><u>Documentation:</u></p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spell out <p>FIBRE OPTIC LIGHT CABLE- Qty 1</p> <ol style="list-style-type: none"> 1. Size should be diameter > 3.5mm, length 300 cm 	
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		<p>INSUFFLATOR- Qty 1</p> <ol style="list-style-type: none"> 1. Flow rate 45 Litere per min. or more. 2. Pressure 0-30 mmhg. 3. Gas to be delivered at body temperature. 4. Fully microprocessor based continuous insufflations with integrated heating mechanism. 5. Class of protection class 1, type BF. 6. High flow with LCD display 7. Microprocessor controlled & Software driven for upgadeability 8. Soft approach pressure control for safe recovery of abdominal pressure 9. Should have Neonatal mode & visual and audible alarms with min 0.1 L flow rate 10. Internal leakage detection capability 11. Integrated Gas heating 12. Having internal venting system for safety 13. Should have video on screen display 14. Unit should include heated tubing, hose & yoke 15. Should be able select either central supply (4.5 kg/cm²) input pressure from central supply as well as direct connection to high pressure co2 cylinder and should indicate the right inlet pressure of CO₂ gas supply of front panel of machine. <p>Standard, Safety and Training.</p> <ol style="list-style-type: none"> 1. Should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system. <p>Documentation:</p>	
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



<ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out 	<p>LAPAROSCOPE: Qty 1 each</p> <ol style="list-style-type: none"> 1. Wide Angle Full Screen, Autoclavable, Forward-Oblique and lateral scope 2. Optimal centre-to-edge resolution for enhanced picture quality 3. Angle of view: 30° and 0° of 10 mm diameter - 01 each 4. Angle of view: 30° degree of 5 mm diameter- 01 no 5. Length 30 cm 6. Fiber optic light transmission incorporated 7. Standard ocular window for coupling the camera head 8. Scratch resistance sapphire coated tip lens <p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. Should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system. <p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be
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



			<p>supplied in English</p> <ol style="list-style-type: none"> 2. Logbook with instructions for Daily, W 3. The job description of the hospital technician, service engineer should clearly spelt out <p>LAPAROSCOPE: Qty 1 each</p> <ol style="list-style-type: none"> 4. Wide Angle Full Screen, Autoclavable, Forward-Oblique and lateral scope 5. Optimal centre-to-edge resolution for enhanced picture quality 6. Angle of view: 30° and 0° of 10 mm diameter - 01 each 7. Angle of view: 30° degree of 5 mm diameter- 01 no 8. Length 30 cm 9. Fiber optic light transmission incorporated 10. Standard ocular window for coupling the camera head 11. Scratch resistance sapphire coated tip lens <p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. Should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system. <p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be 	

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		<p>supplied in English</p> <ol style="list-style-type: none"> 2. Logbook with instructions for Daily, W 3. The job description of the hospital technician, service engineer should clearly spelt out <p>HIGH DEFINITION DIGITAL DOCUMENTATION SYSTEM (RECORDER SYSTEM)</p> <p>- Qty 1 : The system should have:</p> <ol style="list-style-type: none"> 1. High Definition Digital Documentation System (Recorder System) 2. Should be real time, MPEG 2 HD, 1or 2 compression engine with full IBP encoding 3. Should have video inputs minimum 2 nos. S-Video, 2 nos. Composite, 1 XGA(1024 X 768) and 1 High-Definition (1280 X 1024). 4. Should have video outputs S-Video, Composite, DVI & XGA (1024 X 768, 1280X 1024, and 1600 X 1200) 5. Should be capable of Progressive scan image capture: Analog (640 x 480), Hi-Res (1024 X 768), and Hi-Def (1280 X 1024) 6. Should have Stereo audio Input 7. Should have Disc Capacity of 250 GB/1 Tera bite 8. Should have touch screen (min 10 inch) control panel interface 9. Multi session disc recording capability 10. Should support file formats for Images: Bitmap (BMP), JPEG, JPEG2K, Tagged Image File Format (TIFF) Videos: MPEG-1, MPEG-2, and MPEG-4 11. Should have CD-R, DVD-R, DVD+R (single session), DVD+RW/Disc Recording Formats, Real time Broadcasting facilities over internet 12. in HD formats should be there <p><u>Standard, Safety and Training:</u></p> <ol style="list-style-type: none"> 1. Should be USFDA or European CE approved. 	
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<ol style="list-style-type: none"> 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system <p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out 	<p>INSTRUMENTS & ACCESSORIES FOR LAPAROSCOPY SET :</p> <p>Trocar & Cannula :</p> <ul style="list-style-type: none"> • Cannula size: 11 mm diameter; should have multifunctional valve and automatic valve to prevent damage of sharp instruments. It should have stopcock for CO2 insufflation. • Trocar should have pyramidal tip with pin holes near the tip • for safety outlet of CO2 gas. The working length of the cannula should be 100mm-110mm 	<p>Trocar & Cannula :</p> <ul style="list-style-type: none"> • Cannula size : 5mm diameter; should have multifunctional valve and automatic valve to prevent damage of sharp instruments and 18quipme tip lens while passing through the cannula valve. It should have stopcock for CO2 insufflation. • Trocar should have pyramidal tip with pin holes near the tip for safety outlet of CO2 gas. The
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	<p>working length of the canula should be 100-110 mm.</p> <p>Veress Needle :</p> <ul style="list-style-type: none"> • Veress needle of working length 13 cm with luer lock. <p>Reducer 11/5 mm :</p> <p>Grasping forceps- Babcock :</p> <ul style="list-style-type: none"> • Double action jaws , rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility <p>Grasping Forcep Fenestrated :</p> <ul style="list-style-type: none"> • Atraumatic serration, fenestrated, grasping forcep with • Should be dismantable into three parts namely, outer tube, handle and inserts. Length between 35-36cm, size: 5.0mm. <p>Grasping Forcep Fenestrated curved Fundus grasper :</p> <ul style="list-style-type: none"> • Atraumatic, fenestrated, curved grasping forcep with unipolar connection, insulated sheath, handle without ratchet. Should be dismantable into three parts namely, outer tube, handle and inserts. Length between 35-36cm, size: 5.0mm <p>Bowel Grasping Forcep :</p> <ul style="list-style-type: none"> • Bowel Graped fenestrated, size: 5.0mm, length 35-36cm, handle with ratchet, insulated shaft. <p>Unipolar curved Maryland dissecting and Grasping Forcep :</p> <ul style="list-style-type: none"> • Kelly curved dissecting and grasping forceps insulated, atraumatic, working length 36 cm, size: 5mm, dismountable into handle, insert and working tube. Handle without ratchet. <p>Insert Forcep Unipolar :</p> <ul style="list-style-type: none"> • Insert forcep only Maryland type curved 	
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		<p>atraumatic jaw compatible withmain Kelley curved dissecting forceps.</p> <p>Unipolar curved rightangle dissecting and Grasping Forcep :</p> <ul style="list-style-type: none"> • Kelly curved dissecting and grasping forceps insulated, atraumatic,working length 36 cm, size: 5mm, dismountable into handle, insert and working tube. Handle without ratchet. <p>Tooth Grasping Forcep : Grasping forceps — toothed 2x 3 teeth, Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm,length 33-36cm, dismantling.</p> <p>Grasping forceps- Allis :</p> <ul style="list-style-type: none"> • Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility <p>Scissor curved Unipolar :</p> <ul style="list-style-type: none"> • METZENBAUM curved scissor, length of blade 12mm, connection for unipolar HF cable, dismountable into insert, tube and handle. Working length 36 cm, size: 5mm, handle without ratchet. <p>Hook Scissor : Hook scissor, with connection for unipolar HF cable; dismountable into insert, tube</p> <p>L Hook HF : L-shaped hook dissector with unipolar HF connection.</p> <p>J Shape Hook -5 mm ,33 cm monopolar</p> <p>Debakay Forceps- 5 mm,33 cm</p> <p>Alligator jaw forcep, 33cm</p> <p>Spatula/Blunt HF dissector :</p> <p>Spatula/Blunt dissector with unipolar HF connection</p> <p>Single action claw forceps : 10 mm</p>	














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		<p>Spoon Forcep : Retrieval of foreign body/stones forcep, size 10mm without ratchet</p> <p>Heavy Duty Robust Bipolar Forcep: Length: 36cm, 5 mm rotating dismantable, preferably wide jaw with spare insert and handle. Suitable bipolar HF cable 2 Nos. to be included along with it.</p> <p>Bipolar HF Connecting cable</p> <p>Clip Applicator: Medium Large clip applicator dismantable rotating size: 10mm, length 36cm, for Titanium clips with ratchet to lock the jaw holding the clip. It should be compatible with more than one brand.</p> <p>Clip Applicator: Large clip applicator dismantable rotating size: 10mm, length 36cm, for Titanium clips with ratchet to lock the jaw holding the clip. It should be compatible with more than one brand.</p> <p>Haemolock clip applicator: 10 mm size. It should be compatible with more than one brand</p> <p>Haemolock clip applicator: 5 mm size. It should be compatible with more than one brand.</p> <p>Washers: For 5 & 10 mm cannula and reducers</p> <p>Two Way Suction irrigation cannula, size: 5mm&10mm each with special handle with trumpet control for irrigation and suction with silicon tubing.</p> <p>Puncture Needle size: 5mm, length 36cm</p> <p>Needle Holder: Macro needle holder with</p>	
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	<p>tungsten carbide insert, ergonomic pistol handle, with disengageable ratchet, jaw curved to left, size: 5mm, length : 33cm for use with suture material size: 0/0 to 7/0.</p> <p>Fan retractor: Fan retractor with simple opening of the fan by axial movement of the outer sheath, dismountable and disendable, size: 10mm, length: 36cm</p> <p>Nathanson Liver retractor: Set of four sizes (45, 55, 78, 95 mm), sandblasted to eliminate light reflection.</p> <p>Unipolar HF Cable: Unipolar HF cable suitable to connect with forcep and electrosurgical unit.</p> <p>Myoma holding screw: 5 mm diameter and working length 30 cm</p> <p>Colpotomiser: 11 mm, with insulated ball-shaped sphere, s 40 mm and 35 mm consisting of Automatic Valve</p> <p>Knot pusher and Knot tier: 5 mm diameter, working length of at least 30 cms for knotting</p> <p>HP Hose: Suitable high pressure hose pin index to connect the gas to insufflator, length : 1.0 meter.</p> <p>CO2 Cylinder : D type-----with hose pipe and regulator and connector 30 Kg.</p> <p>Carbon Dioxide bottle with pin index connection with wrench</p> <p>Suitable Autoclavable plastic tray double tray for sterilization and storage for hand instruments of minimum 20 hand instruments preferably from OEM.</p> <p>Sterilization/Disinfection Tray: Disinfection/Sterilization tray with sieve tray to lift. Size: 27"x7"x5"(LXBxD)</p> <p>Formaline Chamber: Formaline Chamber made of Virgin Acrylic 4.5mm thickness. size:26"x8"x8"(LXBxH) with three tr</p>	
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	<ol style="list-style-type: none"> 1. Compact suction and irrigation unit having Irrigation pressure not less than 400mmHg & Suction pressure not less than (-0.75mmHg) 2. The unit should be supplied with 1.5 Litre glass bottle with bottle cap and stand. 3. The unit should be supplied with 1.0 Litre irrigation bottle sterilizable in autoclave with bottle cap attachment to connect tubing. 4. The unit should be supplied with reusable irrigation and suction silicone tubing set 2 Nos. each. <p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. All instruments should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance Comprehensive training for technical staff and proper support services till familiarity with the system <p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out <p>Ancillary Equipment</p> <ol style="list-style-type: none"> 1. Monopolar and bipolar cautery cable. 2. Silicon gas tubing with valve system. <p>Video Trolley:</p> <ol style="list-style-type: none"> 1. Suitable Medical Grade video trolley to be supplied for mounting equipments having 	
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		<p>minimum three self in addition to with one drawer, with antistatic wheel casters, front lockable, high grade of electrical insulation and earth protection.</p> <ol style="list-style-type: none"> 2. 5 Ampere socket, 10Nos, inbuilt with trolley to connect all electronic devices. CO2 bottle stand should be integrated with trolley. 3. Potential equalization connection to be provided at least 8 points. Preferably from OEM. 	
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(Dr. J Chhatopadhyay)
BSF
Member-I



(Dr. Rakesh Tiwari)
CMO (SG)
(Anaesthesia),
ITBP Member-VII



(Dr. Rohit Shyam Bobil)
CMO(SG) (ENT)
RH, ITBP, Gr. Noida
Member-II



(Dr. Shafiq Gupta)
Comdt /Spl. Gr.I
(Ophthalmology), ITBP,
Member-VIII



(Dr. Saqub Khan) CMO
(OG)
(Radiology) CRPF,
Member-III



(Dr. Rajkamal Nimesh)
Comdt /Spl. Gr-I
(Surgery), ITBP,
Member-IX

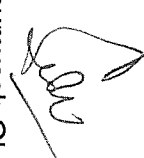

(Dr. R Kuppu Samy)
CMO(SG)
(Paediatrics) CRPF
Member-IV

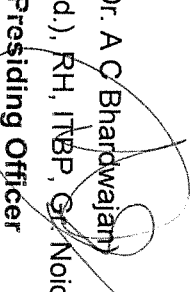

(Dr. Gatri Devi)
CDS (SG), (Dental),
SSB
Member-X


(Dr. Chandrima Kar)
Comdt /Spl. Gr.I &
(Obs Gyn), CRPF
Member-V


(Dr. Neeraj Kumar)
CMO, (Medicine),
ITBP
Member-XI















(Dr. Anurag Jain)
Contractual, Spl
(Orthopaedics),
CRPF Member-VI


(Dr. Soumyesh Ghosh)
Comdt./Spl. Gr.I
(Pathology), ITBP
Member-XII


(Dr. A C Bhardwaj)
IG (Med.), RH, ITBP, Gr. Noida
Presiding Officer










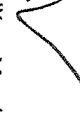



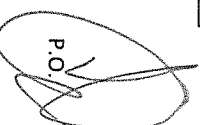
1. ORS/SPECIFICATIONS AND TRIAL DIRECTIVES OF "EMBALMING MACHINE"

S.No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	<ol style="list-style-type: none"> 1. Fluid delivery rate should be 10 Liters / hr 2. Inner tank should capacity to store embalming fluid should be 5-10 liters and should be made of stainless steel 3. Pump: Pump should be of Electromagnetic Dosing pump with capacity of 0-5 liters per hour and with pressure 3 kg/cm² 4. The equipment should be mounted on castors for easy movement and the grip should be provided for easy lifting 5. I.V stand fixed for monitoring cannula tubing and main cable 6. Indicators for mains on & in use should be present 7. The outer body should be of complete stainless steel 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
B	<p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. All instruments should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
C.	<p>Documentation:</p> <ol style="list-style-type: none"> 1. <u>User/Technical/Maintenance manuals to be supplied in English</u> 2. <u>Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance</u> 3. <u>The job description of the hospital technician, service engineer should clearly spelt out</u> 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>








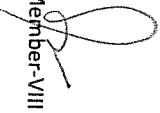




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CRS/SPECIFICATIONS AND TRIAL DIRECTIVES OF "LAPAROSCOPE SURGERY SET"

S.No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	<p>High Definition 4 K Digital Camera - Qty 1</p> <p>The system should have following features:</p> <ol style="list-style-type: none"> Digital matrix processing technology Progressive scanning system for camera Special filters for chrome endoscopy Universal camera head coupler Optical Zoom facility System capable for ICG fluoroscopy for better delineation of anatomy It should have Pure digital signal with High Definition video of 1920 x 1080p (minimum) native resolution and progressive scan technology both on camera head and console It should be compatible with Aspect ratio of 4:3 and 16:9 The system should have Digital and Optical Zoom to enhance the quality of image size & cross specialty standardization of the camera system, regardless of the telescope used. Digital zoom, white balance control and two peripheral controls on camera Head Integrated Gain/Shutter/Enhancement with automatic brightness control Video Outputs: two DVI, one SVHS and one (optional) direct fiber optic output 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. The system should be Menu driven, thus allowing the surgeon to program the camera head functions as per the surgical needs & requirement. <p>Technical Specifications:</p> <ol style="list-style-type: none"> Image System: 1/3" Progressive Scan CCD Pixels 1920 X 1080p pixels per chip (min) Camera Head Weight 150-250 gm. AGC: Microprocessor controlled Signal-to-noise ratio 65-75 dB Video output: S-video signal Digital Video Interface 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>
	<p>Technical Specifications:</p> <ol style="list-style-type: none"> Image System: 1/3" Progressive Scan CCD Pixels 1920 X 1080p pixels per chip (min) Camera Head Weight 150-250 gm. AGC: Microprocessor controlled Signal-to-noise ratio 65-75 dB Video output: S-video signal Digital Video Interface 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>

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	<p>8. Power Supply 100-240 VAC, 50/60HZ</p>		
	<p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> Should be USFDA or European CE approved. Manufacturer should have IOS certification, where Indian standards are not available Comprehensive warranty for daily, weekly, monthly and yearly maintenance Comprehensive training for technical staff and proper support services till familiarity with the system. <p>Documentation:</p> <ol style="list-style-type: none"> User/Technical/Maintenance manuals to be supplied in English Logbook with Instructions for Daily, Weekly, Monthly and Yearly maintenance The job description of the hospital technician, service engineer should clearly spelt out 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>
<p>B.</p>	<p>HIGH RESOLUTION MONITORS- Qty 2</p> <p>The system should have:</p> <ol style="list-style-type: none"> HDTV display in original 16: 9 HDTV format. 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>
	<p>The system should check physically during demonstration.</p>		<p>As per Specification.</p>

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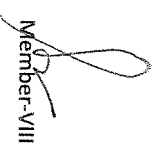
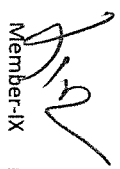




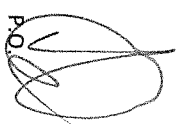
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	<ol style="list-style-type: none"> 2. 1080 p/ 50 & 1080 p/60 displays possible. 3. Drip water protected, dust proof housing. 4. LED crystal display. 5. Max. Resolution of 1920X1080. 6. Desktop with pedestal. 7. Should have the facility of PIP mode. 8. HD medical grade Monitor not less than 27 inch compatible with 4k digital camera 9. with screen diagonal "26", 10. Aspect Ratio 16:9 HD format 11. Brightness : 400 cd/m2 12. Maximum viewing angle : 178° vertical 13. Contrast ratio: 1000 : 1 14. Reaction Time - 8ms 15. Rated power: 115 watts 16. Power Supply 100-240 VAC 17. Screen Dimensions : 673 x 418 x 88mm 18. Video Inputs : 2* DVI , 2* 3G SDI, 1* S Video, 1* SOG, 1* RGBNGA, 1* RS 232, 1* RJ 45 Interface. 19. Output: 1" DVI , 1* 3G SDI, 1* S-Video 20. Accessories External 24VDC Power Supply, Mains Cord, Pedestal. 	<p>OEM should submit an undertaking and documents in this regard.</p>	
	<p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. Should be USFDA or European CE approved. 2. Certified to : EN 60601-1, protection class IPX 1 3. Manufacturer should have IOS certification, where Indian standards are not available 4. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 5. Comprehensive training for technical staff and proper support services till familiarity with the system. 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>C.</p>	<p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>The system should have:</p>			

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<ol style="list-style-type: none"> 1. Automatic and manual light adjustment 2. Colour temperature 5500-6500K 3. Life of light bulb >= 30,000 hrs 4. Universal adapter for fibre optic cable 5. Efficient cooling technology in light source. 6. Degree of protection IPx1 7. 300 W 8. 220 Volts 9. Light Engine: Red, Green & Blue LEDs 10. Increased patient safety & added protection in OR with safe light technology 11. Intuitive simple user interface with LCD touch screen 12. Standby Mode 13. Universal Jaw Assembly to adapt any make of Fiber Optic Cable 14. More than 5000 Hours bulb life 15. Light intensity adjustment continuously adjustable from 0 to 100% manually <p><u>Standard, Safety and Training:</u></p> <ol style="list-style-type: none"> 1. Should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system. 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p> <p>As per specification.</p>
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<p>Documentation:</p> <ol style="list-style-type: none"> User/Technical/Maintenance manuals to be supplied in English Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance The job description of the hospital technician, service engineer should clearly spelt out 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>D.</p> <ol style="list-style-type: none"> FIBRE OPTIC LIGHT CABLE- Qty 1 Size should be diameter > 3.5mm, length 300 cm 	<p>Board should check physically during demonstration.</p>	<p>As per specification.</p>
<p>INSUFFLATOR- Qty 1</p> <ol style="list-style-type: none"> Flow rate 35- 45 Liter/minits High flow with LCD display Microprocessor controlled & Software driven for upgradeability Soft approach pressure control for safe recovery of abdominal pressure Should have Neonatal mode & visual and audible alarms with min 0.1 L flow rate Internal leakage detection capability Integrated Gas heating Having internal venting system for safety Should have video on screen display Unit should include heated tubing, hose & yoke Should be able select either central supply (4.5 kg/cm2) input pressure from central supply as well as direct connection to high pressure co2 cylinder and should indicate the right inlet pressure of CO₂ gas supply of front panel of machine. 		
<p>Standard, Safety and Training.</p> <ol style="list-style-type: none"> Should be USFDA or European CE approved. Manufacturer should have IOS certification, where Indian standards are not available Comprehensive warranty for daily, weekly, monthly and yearly maintenance Comprehensive training for technical staff and proper support services till familiarity with the system. 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>Documentation:</p> <ol style="list-style-type: none"> User/Technical/Maintenance manuals to be supplied in English Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance The job description of the hospital technician, service engineer should clearly spelt out 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>

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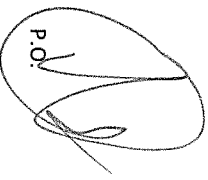
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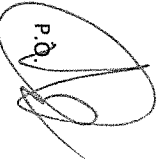
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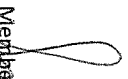






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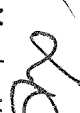







<p>LAPAROSCOPE: Qty 1 each</p> <ol style="list-style-type: none"> Wide Angle Full Screen, Autoclavable, Forward-Oblique and lateral scope Optimal centre-to-edge resolution for enhanced picture quality Angle of view: 30° and 0° of 10 mm diameter - 01 each Angle of view: 30° degree of 5 mm diameter- 01 no Length 30 cm Fiber optic light transmission incorporated Standard ocular window for coupling the camera head Scratch resistance sapphire coated tip lens 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> Should be USFDA or European CE approved. Manufacturer should have IOS certification, where Indian standards are not available Comprehensive warranty for daily, weekly, monthly and yearly maintenance Comprehensive training for technical staff and proper support services till familiarity with the system. 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>Documentation:</p> <ol style="list-style-type: none"> User/Technical/Maintenance manuals to be supplied in English Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance The job description of the hospital technician, service engineer should clearly spelt out 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>

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<p>HIGH DEFINITION DIGITAL DOCUMENTATION SYSTEM (RECORDER SYSTEM) - Qty 1 : The system should have:</p> <ol style="list-style-type: none"> 1. High Definition Digital Documentation System (Recorder System) 2. Should be real time, MPEG 2 HD, 1or 2 compression engine with full IBP encoding 3. Should have video inputs minimum 2 nos. S-Video, 2 nos. Composite, 1 XGA (1024 X 768) and 1 High-Definition (1280 X 1024). 4. Should have video outputs S-Video, Composite, DVI & XGA (1024 X 768, 1280 X 1024, and 1600 X 1200) 5. Should be capable of Progressive scan image capture: Analog (640 x 480), Hi-Res (1024 X 768), and Hi-Def (1280 X 1024) 6. Should have Stereo audio Input 7. Should have Disc Capacity of 250 GB/1 Tera bite 8. Should have touch screen (min 10 inch) control panel interface 9. Multi session disc recording capability 10. Should support file formats for Images: Bitmap (BMP), JPEG, JPEG2K, Tagged Image File Format (TIFF) Videos: MPEG-1, MPEG-2, and MPEG-4 11. Should have CD-R, DVD-R, DVD+R (single session), DVD+RW Disc Recording Formats. 12. Real time Broadcasting facilities over internet in HD formats should be there <p><u>Standard, Safety and Training:</u></p> <ol style="list-style-type: none"> 1. Should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p><u>Documentation:</u></p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out 	<p>OEM Should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>

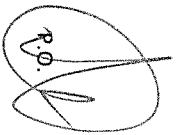
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INSTRUMENTS & ACCESSORIES FOR LAPAROSCOPY SET :		Qty	As per specification.
Trocar & Cannula :		03	Board should check physically during demonstration. OEM should submit an undertaking and documents in this regard.
<ul style="list-style-type: none"> Cannula size: 11 mm diameter, should have multifunctional valve and automatic valve to prevent damage of sharp instruments. It should have stopcock for CO2 insufflation. Trocar should have pyramidal tip with pin holes near the tip for safety outlet of CO2 gas. The working length of the cannula should be 100-110 			
Trocar & Cannula :		04	
<ul style="list-style-type: none"> Cannula size :5mm diameter; should have multifunctional valve and automatic valve to prevent damage of sharp instruments and 18gauge tip lens while passing through the cannula valve. It should have stopcock for CO2 insufflation. Trocar should have pyramidal tip with pin holes near the tip for safety outlet of CO2 gas. The working length of the canula should be 100-110 mm. 			
Veress Needle :		02	
<ul style="list-style-type: none"> Veress needle of working length 13 cm with luer lock. 			
Reducer 11/5 mm :		02	
Grasping forceps- Babcock :		01	
<ul style="list-style-type: none"> Double action jaws , rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility 			
Grasping Forcep Fenestrated :		01	
<ul style="list-style-type: none"> Atraumatic serration, fenestrated, grasping forcep with unipolar connection, insulated sheath, handle without ratchet. Should be dismantable into three parts namely, outer tube, handle and inserts. Length between 35-36cm, size: 5.0mm. 			
Grasping Forcep Fenestrated curved Fundus grasper :		01	
<ul style="list-style-type: none"> Atraumatic, fenestrated, curved grasping forcep with unipolar connection, insulated sheath, handle without ratchet. Should be dismantable into three parts namely, outer tube, handle and inserts. Length between 35-36cm, size: 5.0mm 			













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<p>Bowel Grasping Forcep :</p> <ul style="list-style-type: none"> Bowel Grasped fenestrated, size: 5.0mm, length 35-36cm, handle with ratchet, insulated shaft. 	02	<p>Board should check physically during demonstration. OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>Unipolar curved Maryland dissecting and Grasping Forcep :</p> <ul style="list-style-type: none"> Kelly curved dissecting and grasping forceps insulated, atraumatic, working length 36 cm, size: 5mm, dismountable into handle, insert and working tube. Handle without ratchet. 	02		
<p>Insert Forcep Unipolar :</p> <ul style="list-style-type: none"> Insert forcep only Maryland type curved atraumatic jaw compatible with main Kelley curved dissecting forceps. 	01		
<p>Unipolar curved rightangle dissecting and Grasping Forcep :</p> <ul style="list-style-type: none"> Kelly curved dissecting and grasping forceps insulated, atraumatic, working length 36 cm, size: 5mm, dismountable into handle, insert and working tube. Handle without ratchet. 	02		
<p>Tooth Grasping Forcep : Grasping forceps — toothed 2x 3 teeth, Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling.</p>	02		
<p>Grasping forceps- Allis :</p> <ul style="list-style-type: none"> Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility 	01		
<p>Scissor curved Unipolar :</p> <ul style="list-style-type: none"> METZENBAUM curved scissor, length of blade 12mm, connection for unipolar HF cable, dismountable into insert, tube and handle. Working length 36 cm, size: 5mm, handle without ratchet. 	02		
<p>Hook Scissor : Hook scissor, with connection for unipolar HF cable, dismountable into insert, tube</p>	01		
<p>L Hook HF : L-shaped hook dissector with unipolar HF connection.</p>	02		
<p>J Shape Hook -5 mm ,33 cm monopolar</p>	02		
<p>Debakay Forceps- 5 mm,33 cm</p>	01		
<p>Alligator jaw forcep, 33cm</p>	02		
<p>Spatula/Blunt HF dissector :</p>	01		
<p>Spatula/Blunt dissector with unipolar HF connection</p>	01		
<p>Single action claw forceps : 10 mm</p>	01		

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<p>Spoon Forcep : Retrieval of foreign body/stones forcep, size 10mm without ratchet</p>	01	<p>Board should check physically during demonstration. OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>Heavy Duty Robust Bipolar Forcep: Length: 36cm, 5 mm rotating dismantable, preferably wide jaw with spare insert and handle. Suitable bipolar HF cable 2 Nos. to be included along with it.</p>	01		
<p>Bipolar HF Connecting cable</p>	04		
<p>Clip Applicator: Medium Large clip applicator dismantable rotating size: 10mm, length 36cm, for Titanium clips with ratchet to lock the jaw holding the clip. It should be compatible with more than one brand.</p>	01		
<p>Clip Applicator: Large clip applicator dismantable rotating size: 10mm, length 36cm, for Titanium clips with ratchet to lock the jaw holding the clip. It should be compatible with more than one brand.</p>	01		
<p>Haemolock clip applicator: 10 mm size. It should be compatible with more than one brand</p>	01		
<p>Haemolock clip applicator: 5 mm size. It should be compatible with more than one brand.</p>	01		
<p>Washers: For 5 & 10 mm cannula and reducers</p>	01		
<p>Two Way Suction irrigation cannula, size: 5mm&10mm each with special handle with trumpet control for irrigation and suction with silicon tubing.</p>	01		
<p>Puncture Needle size: 5mm, length 36cm</p>	01		
<p>Needle Holder: Macro needle holder with tungsten carbide insert, ergonomic pistol handle, with disengageable ratchet, jaw curved to left, size: 5mm, length : 33cm for use with suture material size: 0/0 to 7/0.</p>	02		
<p>Fan retractor: Fan retractor with simple opening of the fan by axial movement of the outer sheath, dismantable and distendable, size: 10mm, length: 36cm</p>	01		
<p>Nathanson Liver retractor: Set of four sizes (45, 55, 78, 95 mm), sandblasted to eliminate light reflection.</p>	01		
<p>Unipolar HF Cable: Unipolar HF cable suitable to connect with forcep and electrosurgical unit.</p>	02	<p>Board should check physically during demonstration.</p>	<p>As per specification.</p>

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






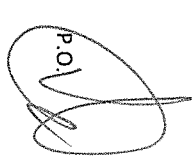


Myoma holding screw: 5 mm diameter and working length 30 cm	01	OEM should submit an undertaking and documents in this regard.
Colpotomiser: 11 mm, with insulated ball-shaped sphere, s 40 mm and 35 mm consisting of Automatic Valve	01	
Knot pusher and Knot tier: 5 mm diameter, working length of at least 30 cms for knotting	01	
HP Hose: Suitable high pressure hose pin index to connect the gas to insufflator, length : 1.0 meter.	01	
CO2 Cylinder : D type----with hose pipe and regulator and connector 30 Kg. Carbon Dioxide bottle with pin index connection with wrench	02	
Suitable Autoclavable plastic tray double tray for sterilization and storage for hand instruments of minimum 20 hand instruments preferably from OEM.	04	
Sterilization/Disinfection Tray: Disinfection/Sterilization tray with sieve tray to lift. Size: 27"x7"x5"(LxBxD)	01	
Formaline Chamber: Formaline Chamber made of Virgin Acrylic 4.5mm thickness; size:26"x8"x8"(LxBxH) with three tray, for sterilizing the laparoscope, preferably with three tray Indian make.	01	
Standard. Safety and Training:		
1. All instruments should be USFDA or European CE approved.		
2. Manufacturer should have IOS certification, where Indian standards are not available		
3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance		
4. Comprehensive training for technical staff and proper support services till familiarity with the system		
Documentation:		
1. User/Technical/Maintenance manuals to be supplied in English		
2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance		
3. The job description of the hospital technician, service engineer should clearly spelt out		

Member-I  Member-II  Member-III  Member-IV  Member-V  Member-VI  Member-VII  Member-VIII  Member-IX  Member-X  Member-X  Member-XI  Member-XII 


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<p>UUPS 2.0 KVA: 4. UUPS — 2.0 KVA off line with One hour backup time(at 1200 Watts real load) with SMF Batteries. 5. Should be able to work on wide input range between 160-270 VAC at 22frequency between 50Hz + 2Hz 6. Should use PWM technology with power conversion with single transformer arrangements with an output of 220VAC + 5% 7. Protection of overload, short circuit and low battery. 8. Should have indication on front panel for mains load/battery load/ battery overload-low and MCB protection in case of short circuit. 9. ISI/CE approved good quality Indian make.</p>	<p>01</p>	<p>Board should check physically during demonstration. OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>SPECIFICATION FOR SUCTION AND IRRIGATION DEVICE FOR LAPAROSCOPE SET: 1. Compact suction and irrigation unit having Irrigation pressure not less than 400mmHg & Suction pressure not less than (-0.75mmHg) 2. The unit should be supplied with 1.5 Litre glass bottle with bottle cap and stand. 3. The unit should be supplied with 1.0 Litre irrigation bottle sterilizable in autoclave with bottle cap attachment to connect tubing. 4. The unit should be supplied with reusable irrigation and suction silicon tubing set 2 Nos. each.</p>	<p>01</p>	<p>Board should check physically during demonstration. OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>Standard, Safety and Training: 1. All instruments should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system</p>			
<p>Documentation: 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out</p>			

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APPENDIX-1 (H) XXXX

Ancillary Equipment	02 each	Board should check physically during demonstration.	As per specification
<ol style="list-style-type: none"> 1. Monopolar and bipolar cautery cable. 2. Silicon gas tubing with valve system. <p>Video Trolley:</p> <ol style="list-style-type: none"> 1. Suitable Medical Grade video trolley to be supplied for mounting equipments having minimum three self in addition to with one drawer, with antistatic wheel casters, front lockable, high grade of electrical insulation and earth protection. 2. 5 Ampere socket, 10Nos, inbuilt with trolley to connect all electronic devices. CO2 bottle stand should be integrated with trolley. 3. Potential equalization connection to be provided at least 8 points. Preferably from OEM. 	02	OEM should submit an undertaking and documents in this regard.	


(Dr. J Chatopadhyay)
BSF
Member-I

(Dr. Rohit Shyam Bobil)
CMO(SG) (ENT)
RH, ITBP, Gr. Noida
Member-II

(Dr. Saquib Khan) CMO
(OG)
(Radiology) CRPF,
Member-III

(Dr. R Kuppuppu Samy)
CMO(SG)
(Paediatrics) CRPF
Member-IV

(Dr. Chandrima Kar)
Comdt/Spl. Gr.1 &
(Obs Gyn), CRPF
Member-V

(Dr. Anurag Jain)
Contractual, Spl
(Orthopaedics),
CRPF Member-VI

(Dr. Rakesh Tiwari)
CMO (SG)
(Anaesthesia),
ITBP Member-VII

(Dr. Shaifali Gupta)
Comdt/Spl. Gr.1
(Ophthalmology), ITBP,
Member-VIII

(Dr. Raikamal Nimesh)
Comdt/Spl. Gr-1
(Surgery), ITBP,
Member-IX

(Dr. Gatri Devi)
CDS (SG), (Dental),
SSB
Member-X

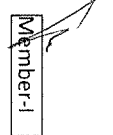
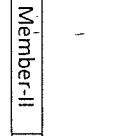
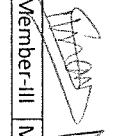
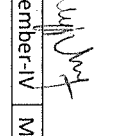
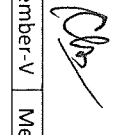
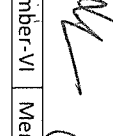
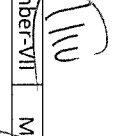
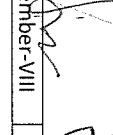


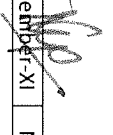

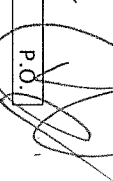
(Dr. Neeraj Kumar)
CMO, (Medicine),
ITBP
Member-XI

(Dr. Soumyesh Ghosh)
Comdt/Spl. Gr.1
(Pathology), ITBP
Member-XII

(Dr. A C Bhardwaj)
IG (Med.), RH, ITBP, Gr. Noida
Presiding Officer














APPENDIX-2 H (I)

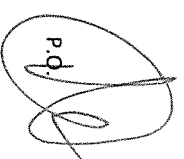
S.N	NAME OF THE EQUIPMENT	IS IT AVAILABLE IN PET (AS PER 100 BEDDED). IF YES THEN MENTIONED SL.NO. OF PET	QRS AVAILABLE OR NOT
1	DEEP VEIN THROMBOSIS PUMP (DVT)	NO	NO
2	HARMONIC DEVICE AND SCALPEL	NO	NO
3	DIODE LASER SYSTEM FOR EVLA AND PROCTOLOGY APPLICATIONS	NO	NO
4	LIGA SURE (VESSEL SEALING DEVICES)	NO	NO
5	CYSTOSCOPE (FLEXIBLE)	YES (793 TO 794)	NO
6	FIBRE OPTIC ENDOSCOPE	NO	NO
7.	INSTUMENT TROLLY MEDIUM	YES (863 & 1318)	NO
8.	SS TROLLEY SMALL FOR EQUIPMENTS	YES (863 & 1318)	NO
9.	FLASH STERILIZER	NO	NO
10	STRAIGHT CABINET	NO	NO

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ORS/SPECIFICATIONS AND TRIAL DIRECTIVES OF "DEEP VEIN THROMBOSIS PUMP"














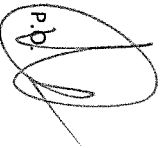
S.No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	<ol style="list-style-type: none"> 1. The system should offer sequential gradient circumferential compression 2. It should be a Microprocessor driven controller and fully automatic 3. It should give personalized compression to prevent blood pooling 4. It should have inbuilt display which shows the compression pattern of both the limbs 5. It should offer optimal pressure of 40-50 mmHg at ankle 6. It should offer optimal pressure of 40-45 mmHg at calf 7. It should offer optimal pressure of 30-35 mmHg at thigh 8. Should have two pair of reusable and washable sleeves for calf (01 large & 01 medium in size) 9. Length of power supply cord should be minimum 04 meter 10. Warranty: minimum 05 years 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>
B.	<p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. All instruments should be USFDA / European CE / BIS approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system 		
C.	<p>Documentation:</p> <ol style="list-style-type: none"> 5. User/Technical/Maintenance manuals to be supplied in English 6. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 7. The job description of the hospital technician, service engineer should clearly spelt out 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>AS per Specification.</p>

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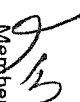



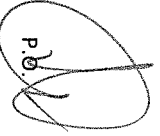
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DRS/SPECIFICATIONS AND TRIAL DIRECTIVES OF "HARMONIC DEVICE AND SCALPEL"












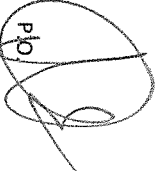
S.No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	<p>ULTRA SONIC CUTTING AND COAGULATING DEVICE WITH ADVANCE BIPOLAR VESSEL SEALING SYSTEM</p> <ol style="list-style-type: none"> 1. System should have a universal single generator to connect Ultrasonic energy and Advanced RF (advance bipolar) energy instruments to reduce the clumsiness inside the theatre and increase the ergonomics, 2. Ultrasonic and bipolar energy in the system must work separately. Should deliver pure ultrasonic energy and RF energy separately. 3. Ultrasonic energy system should have light weight transducer for open surgery and laparoscopic surgery. 4. RF and Ultrasonic energy should be capable of sealing up to 7mm blood vessel 5. System should have automatic instrument recognition 6. System should have the ability for software updates via USB memory stick. 7. System should provide Class 1 protection against electric shock 8. System should have a single foot switch for operating ultrasonic energy or advanced RF energy instruments to reduce confusion as well as space during surgery 9. System should have the ability to select hand switch or foot switch activation or both for Ultrasonic and advanced RF energy instruments and the ability to change selection during use 10. System should not have minimal lateral thermal spread more than 1 mm. 11. System should have onscreen warning display system for generator overheating, generator software upgrade, handpiece errors and instrument errors 12. System should be compatible for open surgery and for laparoscopic surgery. 13. System should have different gradable power settings levels with power level display for ultrasonic energy instruments. 14. System should be equipped with advanced RF energy technology that provides temperature controlled energy delivery and temperature should not exceed 100°C. 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>

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<p>B.</p> <p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. All instruments should be USFDA / European CE / BIS approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>C.</p> <p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out 		
<p>D.</p> <p>ACCESSORIES</p> <p>Open Surgery Instruments (Ultrasonic cutting and coagulation device):</p> <ol style="list-style-type: none"> 1. 9cm shaft, curved, tapered tip for precise dissection, seals 5 mm vessels, as well as lymphatic with 16 mm active blade & 240-degree activation, triggers support multiple hand positions. - 2NOS. 2. 17cm shaft, curved, tapered tip for precise dissection, seals 5 mm vessels, as well as s lymphatic with 15 mm active blade & 240-degree activation, triggers support multiple hand positions. - 2NOS. 3. Ultrasonic hook with changeable length from 10-14cm for open surgery. - 2 NOS. 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>













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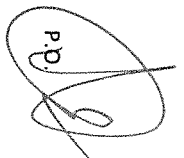
	<p>Open Surgery Instruments (Bipolar advance vessel sealing device):</p> <ul style="list-style-type: none"> Hand probes with 5mm shaft diameter, around 25cm long with 5mm tip width. 2 nos. <p>Laparoscopic Surgery Instruments (Ultrasonic cutting and coagulation device):</p> <ol style="list-style-type: none"> 5mm Lap Hand Activated Curved Coagulating Shears capable of sealing blood vessels up to 5mm in diameter, at around 35 cm shaft length, ergonomic handle- 02 nos. 5mm Lap Hand Activated Curved Coagulating Shears capable of sealing blood vessels up to 7 mm in diameter, around 35 cm shaft length, ergonomic handle- 02 nos. <p>Laparoscopic surgery instrument (Bipolar advance vessel sealing device):</p> <ul style="list-style-type: none"> Articulating Laparoscopic probe probes with 5mm shaft diameter, 35cm long with 5mm tip width, Probe should have ability to rotate 360° and articulate 45° to 90° both sides- 02 nos. 		
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QRS/SPECIFICATIONS AND TRIAL DIRECTIVES OF "DIODE LASER SYSTEM ELVA AND PROCTOLOGY APPLICATIONS"

S.No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	Lase Type	Diode, Semiconductor	Board should check physically during demonstration. OEM should submit an undertaking and documents in this regard. Board should check physically during demonstration. As per specification.
	Wavelength	1470 nm	
	Max power	12-15 watts	
	L Alrming beam	635 nm/ 1, 5m W max	
	O e a in ode	Continuous or modulated	
	Pulse time	10 ms- 10 sec	
	Beam emission initiation	Foot switch	
	Controller Display	Micro rocessor 1. Colour, wide display with digital touch screen 2. Should display error message on screen	
	Cooling system	Internal, air and thermoelectric cooling	
	Power supply of AC adaptor	Single phase 100-240 VAC; 50-60 Hz; max 90 W	
	Power supply of the Laser	Should be compatible with AC adaptor	
	Laser weight	2 - 4 kg	
	Environmental condition during work	F 0 %°C to +25°C relative humidity from 30% to 60%	
	Accessories	Sno.	
	Optical bare fibre	Sno.	
Radial optical fibre	Sno.		
Conical fibre	Sno.		
Catheter set for radial fibres	Sno.		
Catheter set for bare fibres	Sno.		
Laser compatible practoscope	Sno.		
Safety glasses for doctors			
USB key, manual and personal patient database			
Foot switch			

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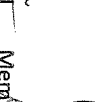
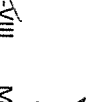
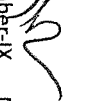
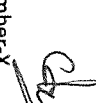
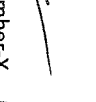

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Power cord		
AC Adaptor		
All power cords and operating length should be > 3 meter		
Demonstration of equipment and training to be provided after completing supplies and installation before acceptance	OEM should submit an undertaking and documents in this regard.	
3 year warranty & 5 year CAMC after warranty from the date of OK report		
B.		
Standard, Safety and Training:		
<ol style="list-style-type: none"> All instruments should be USFDA / European CE / BIS approved with 4digit medical directory number by European notified body Manufacturer should have IOS certification, where Indian standards are not available Comprehensive warranty for daily, weekly, monthly and yearly maintenance Comprehensive training for technical staff and proper support services till familiarity with the system 	Board should check physically during demonstration. OEM should submit an undertaking and documents in this regard.	As per specification.
C.		
Documentation:		
<ol style="list-style-type: none"> User/Technical/Maintenance manuals to be supplied in English Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance The job description of the hospital technician, service engineer should clearly spelt out 		















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4. QRS/SPECIFICATIONS AND TRIAL DIRECTIVES OF LIGA SURE (VESSEL SEALING DEVICES)

S.No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	<ol style="list-style-type: none"> 1. Possible to seal all type of vein, artery or tissue bundle encountered in different type of surgery 2. Should be able to diagnose the type of tissue in the instrument jaws and deliver appropriate amount of energy to effectively seal 3. Seals must withstand 3x the normal systolic pressure 4. The system should incorporate instant response technology 5. System should be able to seal vessels upto 7 mm & should be FDA approved 6. Contain seal foot paddle as well as Bi-polar foot paddle 7. System should have feedback mechanism which provides audible tone when successful seal cycle is complete- eliminating the guesswork 8. Seal formed by melting of collagen & elastin within sealing & dissection in both 10 mm & 5 mm laparoscopic handsets 9. Indicator for Re-grasp should be activated as necessary 10. Seal strength should be measured by Bar indicator on the system generator 11. Minimal sticking, tissue charring and reduced thermal spread, unlike standard bipolar and monopolar electrosurgery 12. Provide visible translucent seal as an integration of seal integrity 13. System should be light in weight 14. Seal cycle with auto stop features 15. Machine should give indicative beep sound to signify that sealing has been completed 16. Error monitoring system 17. Memory button to recall most recently used intensity and power settings 18. Must work on Bipolar Radio Frequency Generator and forcep principle in Marco & Micro Bi-polar mode 19. System should be capable of accepting any two pin banana cable instrument from any make 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>








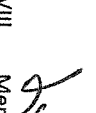



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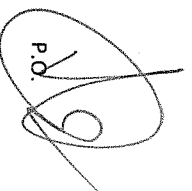
	<p>20. Type CF Equipment (IEC 60601-1): This generator provides high degree of protection against electric shock, particularly regarding allowable leakage currents. It is type CF isolated (floating) output and poses no fibrillation danger</p> <p>21. Defibrillator proof: This generator complies with the ANSI/AAMI HF 18 specifications for "Defibrillator Proof designation and IEC 60601-2-2</p> <p>22. Electromagnetic Interference: When placed on or beneath an activated electrosurgical generator operates without interference. The generator minimizes electromagnetic interference to video equipment used in operating room</p> <p>Output waveform</p> <p>Mode:-</p> <p>a) Seal: 473 KHz Sinusoid, Pulsed</p> <p>b) Macro Bi-Polar/Micro Bi-Polar 473 KHz Sinusoid, 100% Duty Cycle</p> <p>Output Characteristics</p> <table border="1" data-bbox="853 392 1021 1433"> <tr> <td>Macro Bi-Polar:</td> <td>95W</td> </tr> <tr> <td>Bi-Polar:</td> <td>95W</td> </tr> <tr> <td>Seal:</td> <td>150W</td> </tr> <tr> <td>Voltage:</td> <td>170V - 270V, 50Hz</td> </tr> </table> <p>Bi-Polar vessel sealing device should be compatible to work in normal saline media to operate in BPH (TURP)</p> <p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. All instruments should be USFDA / European CE/ BIS approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system 	Macro Bi-Polar:	95W	Bi-Polar:	95W	Seal:	150W	Voltage:	170V - 270V, 50Hz	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification</p>
Macro Bi-Polar:	95W										
Bi-Polar:	95W										
Seal:	150W										
Voltage:	170V - 270V, 50Hz										
<p>F.</p>	<p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and yearly maintenance. 3. The job description of the hospital technician, service engineer should clearly spell out 										

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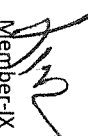



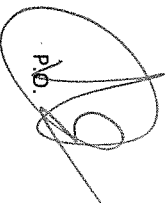
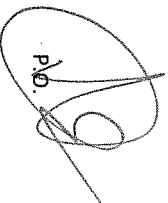
QRS/SPECIFICATIONS AND TRIAL DIRECTIVES OF "FIBRE OPTIC ENDOSCOPE"

S. No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	<p>VIDEO PROCESSOR WITH LIGHT SOURCE AND MONITOR</p> <ol style="list-style-type: none"> 1. Power supply 200-240v A/C 2. Must have HDTV imaging 3. Must have real time N61/F-10E/1-Scan 4. Controls for color adjustment, for enhancement and balance settings 5. IRIS area selection facility with edge enhancement settings 6. Automatic brightness control 7. Controls to freeze images, enhance a portion of frozen image (zoom and post processing) with RGB and digital output. 8. Patient and physician data input key board. 9. Operates on 300 watts Xenon lamp/LED. 10. Halogen/LED/Xenon emergency lamp should be there. 11. Compatibility with Gastroscope and Colonoscope and side viewing Duodenoscope. 12. Image storage and retrieval facility and freeze with simultaneously live display of multiple images. 13. Preferably 21 LCD colour medical grade monitor with picture in picture facility. 14. Electronic zoom upto 1.5 x. 15. Instrument should be light weight (10-12 kg) and compact. 16. Processor should be compatible for future upgradation on Endosono, Enteroscope and Side Viewing Duodenoscope. <p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. All instruments should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>

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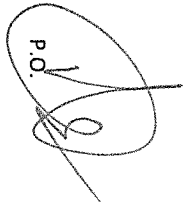

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<p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>
<p>B. FORWARD VIEWING COLONOSCOPE</p> <ol style="list-style-type: none"> 1. Build in HDTV compatible CCD with close focus observation range from 3mm or better. 2. Should be suitable for real time NBI/FICE/I-Scan. 3. Direction of view should be zero degree. 4. Minimum of 140 degree field of view 5. Depth of field at least from 2 mm to 100 mm or better. 6. Angulation of tip: up 150 degree, down 150 degree, right 150 degree and left 150 degree or better. 7. Insertion tube diameter of less than 13 mm. 8. Distal end diameter of not more than 14 mm. 9. Instrument channel diameter should be 3.5 mm or more. 10. Working length should be atleast 1600 mm. 11. Should be compatible with the video system specified. 12. Should have separate locks for up- down and left-right knobs. 13. Should be fully submersible in disinfection solution. 14. Minimum visible distance of instrument used through channel should be 5mm or closer from distal end. 15. Auxiliary water jet channel for mucosal cleaning should be there. 16. Built in HDTV compatible CCD with close focus observation range from 3 mm or better. 	<p>Board should check physically during demonstration. OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>
<p><u>Standard, Safety and Training:</u></p> <ol style="list-style-type: none"> 1. All instruments should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system 		















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	<p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
<p>C.</p>	<p>HARDWARE FOR RECORDING AND PRINTING</p> <ol style="list-style-type: none"> 1. Intel Pentium i7 processor with HT tech 3.0 GHz or better. 2. Intel motherboard supporting Pentium 17 processor or higher. 3. 8 GB RAM HDD or more. 4. 1 TB HDD or more. 5. DVD writer compatible MBPS Ethernet card + connectivity. 6. 2 serial and one parallel ports 7. 8 x USB port (2.0 or better) 8. Multimedia keyboard. 9. Optical scroll mouse 10. Multimedia speakers. 11. Software for direct recording /archiving of images /video to computer and for DVD conversion along with video editing feature. 12. High resolution colour printer with 4 spare colour cartridges. 13. Preloaded with office package —Microsoft office latest with license media kit for atleast 1 year. 14. External 2 TB hard disc-05 Nos. 15. Preloaded with original windows and anti-virus with 1 yr validity. <p>UPS</p> <ul style="list-style-type: none"> • UPS to take care of the above equipment in case of power failure. Mobile cart with suitable compartment to house all the above equipment including computer with extension board. 		
	<p>Standard, Safety and Training :</p> <ol style="list-style-type: none"> 1. All instruments should be USFDA or European CE approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 		

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<p>4. Comprehensive training for technical staff and proper support services till familiarity with the system</p>		
<p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out 		
<p>D. ESSENTIAL ACCESSORIES FOR GASTROSCOPE & COLONOSCOPE TO BE QUOTED SEPARATELY.</p> <ol style="list-style-type: none"> 1. Reusable metallic biopsy forceps for use with upper GI endoscopes-05 Nos 2. Reusable metallic biopsy forceps for use with lower GI endoscope-05 Nos. 3. Cleaning /instrument channel knob/valve-5 Nos for each scope. 4. Suction channel knob-05 Nos for each scope. 5. Air water channel valve -05 Nos for each scope. 6. Metallic endoscope channel cleaning brush-10 Nos for each scope. 7. Extra xenon bulb-4 Nos. 8. Cytology brush-10 Nos for each scope. 9. Leakage tester-02 Nos for each scope. 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>
<p>WARRANTY</p> <ol style="list-style-type: none"> 1. 5 year warranty & 5 yr comprehensive maintenance contract should be provided (Year wise rate to be quoted) from the date of successful commissioning. 2. Company should have an established Registered Service Centre with address & phone numbers at major cities in India. 3. Company should give undertaking regarding the spares availability of the quoted model for next ten years. 4. The bidder should enclose the original product data sheet. The serial number of the specification must be indicated against the relevant portion of the compliance sheet and data sheet. 5. The shortlisted bidder will have to give demonstration of their quoted model before finalizing the evaluation of their bids. 6. 95% uptime warranty & repair action should be taken within 24 hrs of equipment 		


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<p>7. failure & in case repair takes time then replacement of instrument should be provided with in 24 hrs or should be adjusted in warranty, accordingly.</p>		
<p>Standard, Safety and Trainings:</p> <ol style="list-style-type: none"> 1. All instruments should be USFDA / European CE/ BIS approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system 		
<p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 1. The job description of the hospital technician, service engineer should clearly spelt out 	<p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>


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
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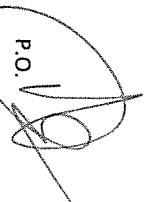
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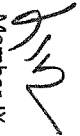



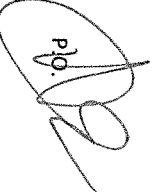
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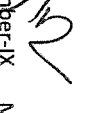

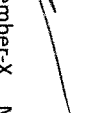

ORS/SPECIFICATIONS AND TRIAL DIRECTIVES OF "CYSCOSCOPE (FLEXIBLE)"

S.No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	<p>This set should include</p> <ul style="list-style-type: none"> a. Forward oblique 30° telescope, 4 mm diameter, autoclavable, length 30 cm, fibre b. optic light transmission incorporated- 02 nos c. Forward oblique 0° telescope, 4 mm diameter, autoclavable, length 30 cm, fibre optic light transmission incorporated- 01 nos d. Oblique 30° telescope, 4 mm diameter, autoclavable, length 30 cm, fibre optic light transmission incorporated- 02 nos e. Cystoscope- Urethroscope sheath, 19/19.5 Fr with obturator and 2 luer-lock connector f. Cystoscope- Urethroscope sheath, 17/17.5 Fr with obturator and 2 luer-lock connector g. Cystoscope- Urethroscope sheath, 22/23 Fr with obturator and 2 luer-lock connector h. Cystoscope- Urethroscope sheath, 25 Fr with obturator and 2 luer-lock connector i. Telescope bridge with lockable channel j. Optical grasping forceps, double action jaws for DJ Stent removal- 01 pcs k. Optical Biopsy forceps, 5 Fr & 7 Fr, each with double actionable jaws, flexible, length 40 cm- 01 pcs l. Sachse Urethrotome set: The set should have 21 Fr Urethrotome sheath with obturator and channel for urethrotome working element. There should be a telescope bridge for use with urethrotome sheath with a 5 Fr channel for instruments. A supplementary half moon sheath, that slips on the urethrotome sheath and is side open for introduction of the balloon tipped catheter, should be included. The set should be provided with a passive working element and should have cold knife (straight)- 06 nos and cold knife (half round)- 06 nos Mauermeyer Stone Punch: This set should be compatible with 4mm 12 degree telescope. The set should have the stone punch working element and should be provided with compatible punch sheath with visual obturator. Sheath should have matt finish for staying of lubrication gel to reduce friction trauma to the patient. m. Toomey Glass Syringe: 50 ml and 100 ml- 01 each in number n. Otis! Non-optical urethrotome knife: Should be supplied with dilatation unit. Should be supplied with knife and head parts- conical, flat and ball shaped- 01 each 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>

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ORS/SPECIFICATIONS AND TRIAL DIRECTIVES OF "INSTRUMENT TROLLEY MEDIUM"


S.No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	<ol style="list-style-type: none"> 1. Frame, shelves, side rails made from stainless steel sheet 2. Swivel wheels- 10 cm 3. Supplied with bucket and basin 4. Number of shelves-01 5. Dimensions- minimum 20 inch x 30 inch 6. Wheel diameter- 10 cm 7. Wheel type- castor 8. Material- Good quality stainless steel 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>
B.	<p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. All instruments should be USFDA / European CE/ BIS approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system 		
C.	<p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearlyspelt out 		

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QRS/SPECIFICATIONS AND TRIAL DIRECTIVES OF "S.S. TROLLEY SMALL FOR EQUIPMENTS"

S.No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	<ol style="list-style-type: none"> 1. Frame, shelves, side rails made from stainless steel sheet 2. Swivel wheels 10 cm 3. Supplied with bucket and basin 4. Number of shelves-01 5. Dimensions- minimum 18 inch x 20 inch 6. Wheel diameter- 10 cm 7. Wheel type- castor 8. Material- Good quality stainless steel 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per specification.</p>
B.	<p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. All instruments should be USFDA / European CE/ BIS approved. 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system 		
C.	<p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out 		










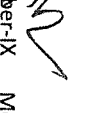

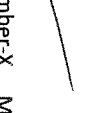
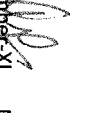


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<p>o. Bipolar/ Saline TURP set and Bipolar electrocautery set: This system should be compatible with following procedures-</p> <ul style="list-style-type: none"> i. Saline TUR ii. Conventional monopolar TUR iii. Bipolar/ saline Enucleation of prostate iv. Open Monopolar v. Open Bipolar vi. Laparoscopic monopolar vii. Laparoscopic bipolar viii. Open vessel sealing ix. Laparoscopic vessel sealing 		
<p>B. System should have following features</p> <ul style="list-style-type: none"> a. Output mode- Monopolar, Bipolar and Saline b. Monopolar cutting: Pure, Blend c. Monopolar coagulation: Spray d. Bipolar cutting: Pure e. Bipolar coagulation: Soft, Hard f. Saline cutting: Pure, Blend g. System should have vessel sealing upto 7 mm, suitable reusable instrument for sealing and cutting simultaneously should be provided h. 5 mm for laparoscopic surgery- 02 nos i. 10 mm for open surgery- 02 nos j. In case of disposable instruments 03 instruments each should be quoted. k. Saline coagulation: 2 or more different strength l. Base frequency: 350 KHz m. Protection against electric shock: Class I type CF n. Weight: Should not be more than 15 kg o. Automatic smoke evacuation facility 		
<p>System should have</p> <ul style="list-style-type: none"> • Electrosurgical unit • Footswitch • Bipolar passive working element 		

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	<ul style="list-style-type: none"> • Monopolar passive working element • Bipolar HF cable • Monopolar HF cable • Rotatable outer sheath 26 Fr/ 24 Fr, 1/4 stopcock- 01 pcs • Resection inner sheath 24 Fr/ 22 Fr with obturator and with/ without stopcock- 01 pcs • 2 way irrigation port for 24 Fr/ 22 Fr sheath for intermittent flow TUR • Compatible visual obturator- 01 <p>J. System should be supplied with compatible electrodes</p> <ul style="list-style-type: none"> • Monopolar cutting loop electrodes- 08 pcs • Monopolar coagulation roller electrodes- 06 pcs • Bipolar cutting electrodes-08 pcs • Bipolar needle electrodes-06 pcs • Bipolar button electrodes for plasma vaporization- 02 pcs • Bipolar enucleation electrodes- 06 pcs • Light guide cable, 3.5 mm, 3 meter- 02 pcs • Elilk's evacuator- 02 pcs 		
	<p>Standard, Safety and Training:</p> <ol style="list-style-type: none"> 1. All instruments should be USFDA / European CE/ BIS approved 2. Manufacturer should have IOS certification, where Indian standards are not available 3. Comprehensive warranty for daily, weekly, monthly and yearly maintenance 4. Comprehensive training for technical staff and proper support services till familiarity with the system 		
	<p>Documentation:</p> <ol style="list-style-type: none"> 1. User/Technical/Maintenance manuals to be supplied in English 2. Logbook with instructions for Daily, Weekly, Monthly and Yearly maintenance 3. The job description of the hospital technician, service engineer should clearly spelt out 		


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QRS/SPECIFICATIONS AND TRIAL DIRECTIVES OF "FLASH STERILIZER"

S.No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	<ol style="list-style-type: none"> 1. It should be a fully automatic table top high pressure steam sterilizer with chamber volume of 20 L for sterilization of wrapped, unwrapped, hollow and porous materials and should have cycles for prions also. 2. It should have intergrated steam generator and vacuum pump. 3. It should be a B class sterilizer with cycle time for wrapped instrument should be less than 25 minutes and 10-15 minutes cycle time for unwrapped cycles. 4. The sterilization chamber, jacket and steam generator should be made of high quality stainless steel. 5. Should have a robust door able to withstand upto a ton of pressure. 6. It should have an integrated water purification system. 7. It should have fully microprocessor control system for fully independent checking and control of the sterilization system. Should be complete auto diagnostic system providing error codes on display in case of failure. 8. It should have thermal fuse protection against overheating of chamber and jacket and against operation of the steam generator without water. 9. It should have LCD display and RS 232 interface. Should have automatic door locking mechanism. 10. Sterilization to be achieved at 134 degrees and 121 degrees. It should also have preloaded test programs for Bowie-Dick test and Vacuum test. 11. The Sterilizer should come with standard accessories like sterilization trays, holders, start up kit, traps of different sizes, Deionizer for connections to water, support for bags, Tray handles etc. 12. It should be CE (European) and FDA (US) certified and should comply with EN 13060 standard for small sterilizers. 13. The company should have installation in India. 	<p>Board should check physically during demonstration.</p> <p>OEM should submit an undertaking and documents in this regard.</p>	<p>As per Specification.</p>


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S. No.	SPECIFICATIONS	Procedure suggested for trial for board of officers	Result expected/ Desired
A.	15. Door pulls: Dull chrome plated metal 16. Push handles: stainless steel 17. Doors: Tambour door counterbalanced, aluminium finish 18. Casters: Metal 5 inch medical grade plate caster 19. Locking system: Central locking system with key lock 20. Dimensions: Minimum 28 inch D x 57 inch W x 80 inch H 21. Interior dimensions: 23 inch D x 48 inch W x 64 inch H 22. Number of cells: Minimum 75 usable flexcell 23. Cart should be optimized for product specific storage 24. Interior and side accessories should be available	Board should check physically during demonstration. OEM should submit an undertaking and documents in this regard.	As per Specification.



 (Dr. J Chatoopathayay) BSF Member-I



 (Dr. Rohit Shyam Bobil) CMO(SG) (ENT) RH, ITBP, Gr. Noida Member-II



 (Dr. Sagun Khan) CMO (OG) (Radiology) CRPF, Member-III



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 (Dr. Anurag Jain) Contractual, Spl (Orthopaedics), CRPF Member-VI



 (Dr. Rakesh Tiwari) CMO (SG) (Anaesthesia), ITBP Member-VII

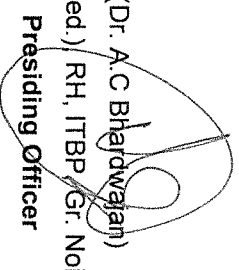

 (Dr. Shafiq Gupta) Comdt /Spl. Gr.I (Ophthalmology), ITBP, Member-VIII


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