TECHNICAL SPECIFICATIONS

DIGITAL ENDOSCOPIC CAMERA SYSTEM

1. Should be a single chip camera technology.
2. Should have one composite video outputs and one S-video output.
3. Should have anti-moister filter for fiber scopes.
4. Should have fully automatic exposure control.
5. Should have automatic white balance with memory function.
6. Should have horizontal resolution of more than 450 lines.
7. Should be supplied with 21" flat LCD monitor.
8. Should work with input 200 to 240Vac 50 Hz supply.

TELESCOPE

1. Should be a rigid telescope with 10mm diameter
2. Should have a minimum working length of 30 cm.
3. Should be supplied with telescope with viewing direction of 0º and 30º.
4. Should have incorporated fiber optic light transmission.
5. Should have scratch resistant tip.

LIGHT SOURCE AND FIBER OPTIC LIGHT CABLE

1. Should be a halogen light source with minimum 250W light output with 10 spare bulb.
2. Should have manual light intensity control.
3. Should have dual fan cooling system.
4. Should have two lamps of 250W and should have provision to change over in the event of failure from one lamp to another.
5. Should be supplied with flexible fiber optic light cable with minimum diameter of 4.8 mm and minimum working length of 230cm.
6. Should work with input 200 to 240Vac 50 Hz supply.

INSUFFLATOR

1. Should have a maximum flow rate of 20L/minute.
2. Should have automatic pressure and flow cut off when the set values are reached.
3. Should have digital displays for set, actual pressure and flow.
4. Should have Co2 cylinder level indicator.
5. Should be supplied with in-let and out-let gas tubings and tools required.
6. Should work with input 200 to 240Vac 50 Hz supply.
LAPROSCOPIC INSTRUMENTS

1. Trocars and cannula inner diameter 5.5 mm, should be stainless steel and autoclavable. Should have stopcock for insufflation and anti-reflex surface – 4 nos.
2. Trocars and cannula inner diameter 10.5 mm, should be stainless steel and autoclavable. Should have stopcock for insufflation and anti-reflex surface - 2 nos.
3. Maryland dissecting and grasping forceps, size 5mm, shall be dismantled to three pieces for better cleaning and disinfection. Should be fully rotational 360 degree and autoclavable. Should have insulated outer tube, plastic handle, luer-lock connector and connector pin for unipolar coagulation and cord. – 2 nos.
4. Manhes grasping forceps, size 5mm can be dismantled to three pieces for better cleaning and disinfection. Should be fully rotational 360 degree and autoclavable. Should have insulated outer tube, plastic handle, luer-lock connector and connector pin for unipolar coagulation and cord.
5. Reddick-Olsen grasping forceps, size 5mm, can be dismantled to three pieces for better cleaning and disinfection. Should be fully rotational 360 degree and autoclavable. Should have insulated outer tube, plastic handle, luer-lock connector and connector pin for unipolar coagulation and cord.
6. Rotating bipolar grasping forceps, size 5mm. can be dismantled to three pieces for better cleaning and disinfection, autoclavable. Length should be minimum 33 cm with connector pin for bipolar coagulation and cord should be supplied. And one bipolar scissors working insert should be supplied.
7. Needle holder, ergonomic handle with ratchet, curved jaw size should be 5mm, and minimum length 33mm. Should be suitable for suture material 0/0 to 7/0.
8. Suction irrigation cannula, size should be 5mm with lateral holes and two-way stop cock for single hand control. Minimum working length should be 36 cm.
9. Coagulating electrode L-shaped and spatula with connector pin for coagulation and cord.
10. Verees pneumoperitoneum needle, with spring action blunt stylet, length should be atleast 10 cm and 15 cm, should have a luer –lock connector for insufflation.

GENERAL SURGERY

1. Single clip applicator, should be dismantling and rotating, should have a ratchet to lock the jaw holding the clip. Size 10mm and minimum length 33mm.
2. Bowel grasper, size 5mm can be dismantled to three pieces for better cleaning and disinfection. Should be fully rotational 360 degree and autoclavable. Should have insulated outer tube, plastic handle, luer-lock connector and connector pin for unipolar coagulation.
3. Metzenbaum scissors, size 5mm can be dismantled to three pieces for better cleaning and disinfection. Should be fully rotational 360 degree and
autoclavable. Should have insulated outer tube, plastic handle, luer-lock connector and connector pin for unipolar coagulation.

GYNAECOLOGY

1. Trocars and cannula diameter 7mm, should be stainless steel and autoclavable. Should have stopcock for insufflation and anti-reflux surface.
2. Ring applicator, may be fitted with 2 silastic rings. For use with trocar size 7mm.
3. High frequency needle for splitting and coagulation size 5mm and minimum working length 31 cm. should be insulated outer tube with connector pin for unipolar coagulation and cord.

OTHERS

1. Should be supplied with suitable trolley.
2. Trolley should have provision to hold gas cylinders.
3. Trolley should have at least 6 power sockets to connect the camera, insufflator, light source, monitor etc.
4. Should have safety certificate from a competent authority CE / FDA (US) / STQC CB certificate / STQC S certificate or valid detailed electrical and functional safety test report from ERTL. Copy of the certificate / test report shall be produced along with the technical bid.