

## Speculums and retractors



Nasopharyngeal

21.009

With F/OLlight

21.010 (N/S)

Voltolini

Fig. 1 to3

21.011 Frankel

21.012 Thudichum

Fig. 1 to3

21.013

Nonconductive

21.013N St. Clair Thompson

Blade 4 sizes

1,5 ,2 ,2.5, 3 in

21.014

Paul's Uvula

Retractor

21.015

Aufricht

nasal reactor

46 mm blade

O/A 180 mm

21.016 60 mm blade

21.016A(N/S)

Light carrier

with fiber optic

21.016 F/O (N/S)Ragnell Retractor

round handle

length 150 mm

21.017 Jackson

double ended

21.018 Lukens

double ended

21.019

## EA + ECC sets (ENDOMETRIAL ASPIRATION /CURETTAGE SETS)

### Specifications:

- ✓ The Endometrial aspiration / curettage sets set should contain the following instruments given below in the tabular format with their numbers and with brief description regarding the size required, for operational ease.
- ✓ All instruments should be made up of high quality stainless steel & corrosive resistant, long durability & reusable, rust resistant and essentially conform to BIS/ISO standards.

S.No	Instrument	Requirement per set	Sets required	Total requirement
1	S.S. tray with lid – 12” x 9”	1	20	20
2	S.S. Bowl - medium	1	20	20
3	Kidney Tray Small size - 8” medium sized	1	20	20
4	Sponge Holding Forceps - 10”	1	20	20
5	Dissecting Forceps plain 8”	1	20	20
6	Dissecting Forceps toothed - 8”	1	20	20
7	SIMS Speculum double blade Medium size	2	20	40
8	Anterior Vaginal Wall	1	20	20
9	Cusco Speculum (fine quality) Medium	1	20	20
10	Uterine Sound	1	20	20
11	Vulsellum Teale Uterine 3:4 teeth 9”	1	20	20
12	EB (endometrial biopsy) Curette Novak	1	20	20
13	Uterine Curette	1	20	20
14	Pipelle biopsy	1	20	20
15	Vibras Aspirator	1	1	1

## Cytology bottle



## MR Syringe



# **Colposcope**

## **Technical Specification:**

- Should have >1000 TV Lines std. >1200 TV Lines (Gamma ON)
- Should have Full HD – 1920 x 1080 resolution
- Should have CCD sensor – (1/3 type Exmor CMOS sensor)
- Should have aspect 16:9(HD)
- The video colposcope must have magnification from min.1x to max.45x
- Facility to increase and decrease the light intensity
- Should have 20,00,000 no. of pixels
- Should have Full HD component output: Y PbPr.
- Magnification indicator should be on the video colposcope.
- High MCD super bright white shadow less LED light for true color reproduction.
- Color temperature should be 7000°k, light source life should be minimum 20000 hrs.
- Auto focus range should be up to 30-40cm
- Facility for fast focusing, zooming, image freeze using thumb on the hand held unit itself.
- Acetic test timer and magnification indicator should be displayed on screen.
- There must be Electronic Green Filter in the hand-held unit without decrease in Illumination.
- Control panel should have feather touch and water proof buttons
- Facility for Fast auto/manual focusing
- Internal Image freeze function facility
- It should be equipped with Gamma Processor to enhance vascular structure
- Should be integrable to LAN and HIS
- Should be USFDA or European CE approved.

## **Company should provide Colposcopy Image Management software with computer with following facilities:-**

- Upgradable software
- Should have facility to generate Cryo-Surgery report
- Should have facility to masking, marking and highlighting of any abnormalities.
- Image capturing while recording/playing
- Final reports with one, two, three & four images with facility to adjust height & width of images.
- Referral linked images with findings for comparison.
- Should be able to show three visits of patient on search of patient ID with display of all 3 visits simultaneously.
- Facility to save & send the report through e-mail in pdf format
- Online support facility (through internet) for software
- Colposcopy software should run on window 8 / Windows XP software
- Facility to take colposcopy images with the colposcopy report on hard copy
- Facility to store still images, cine loop or procedure on CD
- Software should be compatible with both desktop & Laptop, no need of separate capture card.
- Should have REID evaluation chart in tabular form

## **Company has to provide Desktop Computer with:**

- CPU Intel Core i5
- RAM 4 GB

- Hard Disk: 500GB
- Window 8 Home Basic or better
- DVD Writer
- Inkjet Printer
- Computer should be fitted in imported fiber body workstation

**Company should provide: 24" Flat Screen High Definition Monitor**

- Should be high Definition (HD) of 24" with wide screen.
- Should have resolution of 1920x1200 (WUXGA)
- Should be fully compatible with OR video control applications
- Should have surgeon specific user selectable setting
- Should have low voltage DC power input, 24V.
- Should have Class-I Medical Device Certification
- Should have fastest response time (10-15ms)
- Should have PIP facility
- It should consist of Multi-Modality Image viewing inputs:HD-SDI, HD-RGBS/Y,Pb, Pr, DVI, VGA, S-Video Composite: Syn-On-Green.

## **Simple fetal Doppler**

- Light Weight, handset, portable
- High resolution LDC display
- Audible & visual alarm
- Ultrasound Probe – Solid, Anti-shock, Durable
- Built-in-loudspeaker
- Support 2Mhz, 2.5MHz, 3MHz, 4Mhz, 8 MHz water proof probes
- Monitor 12 seeks above unborn baby's blood wall pulsate.
- Ultrasound probe: solid and durable, anti-shock, anti-falling down
- Ultrasound frequency: 2/2.5/3 MHz
- Power: AC 220V 50Hz, Built in 9.6V rechargeable batteries.,
- Power Source: AA (9.6V rechargeable) batteries, AC/DC Adapter
- Temperature (working): +5°C~+40°C
- Humidity (working):≤80%

## NST machine



- Light weight, Space saving & easy operations.
- 10.1" Inch TFT Colour Screen.
- 36 hours data storage which can be playback and printed.
- Special patient event & clinical event marking button.
- Probe is built in FAS & support waterproof.
- Automatic Grading Function

## Stitch removal sets



## Dressing sets





## Torch



- LED Torch
- Wattage: 0.5 watts
- 0.7 Km intense white light
- Slide switch
- Durable plastic body
- DL40 comes with a durable plastic body with a slide switch emitting intense white light for 0.7 km with a lumen efficacy being 3.2V,150mA,55 lumens
- 3.2V,150mA,55Lumen

## Resuscitation tray (laryngoscope, Ambu bag with face mask)

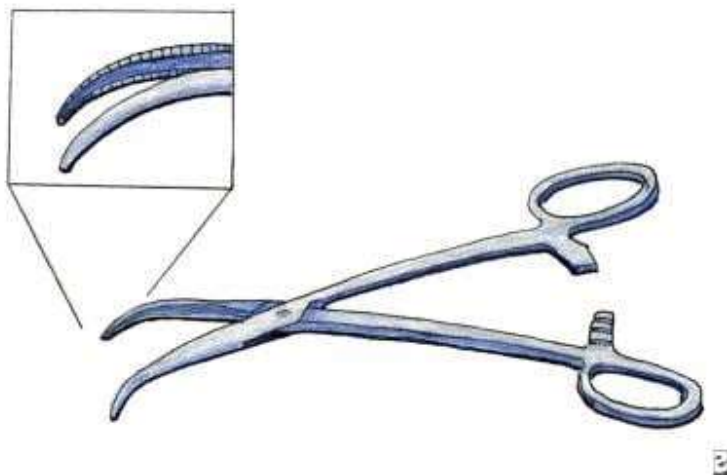


Hysterosalphigogram cannula

**H S G Cannula With Lock**



PCT forceps



**Ayer's spatula**



**Abdominal Hysterectomy set**



## Vaginal Hysterectomy set

**Advin**  
Health Care



**Sim's speculum**



**Vulsellum speculum**



## Right angle retractor



### LANGENBACK RIGHT ANGLED RETRACTOR

Product Code	MRP
BS.2650.001 (28mm x 10mm)	2000/-
BS.2650.002 (40mm x 11mm)	2000/-
BS.2650.003 (55mm x 14mm)	2000/-

**Uterine sound**



**Bladder sound**



## Tuboplasty set

1	Knife handle No 7	1 Pcs
2	Iris Scissors 4 " (10.2 cm), Str	1 Pcs
3	Iris Scissors 4 " (10.2 cm), Cvd	1 Pcs
4	Brown-Adson Tissue Forceps 4 3/4" (12.1 cm), 7x7 T	1 Pcs
5	Potts smith dressing forceps 7" (17.8 cm), serr	1 Pcs
6	Halsted Mosquito Forceps 5" (12.7 cm), delicate Cvd.	4 Pcs
7	Webster Needle holder 4 3/4" (12.1 cm), carb-N-Sert Jaws	1 Pcs
8	Probe w/eye 5 1/2" (14 cm) , Sterling	1 Pcs
9	Swiss Jewelers Style Forceps No. 3C	1 Pcs
10	Guthrie Hook, Double Prongs	2 Pcs
11	Bowman Sterling Probes, Set of 6	1 Pcs
12	Castroviejo Suturing Forceps	1 Pcs
13	Mcpherson-Vannas (Iris) Scissors 3 1/2" (8.3 cm), Str.	1 Pcs
14	Castroviejo Needle Holder, W/lock, Delicate	1 Pcs
15	Frazier Ferguson Suction Tube, str.9 Fr. (3 mm)	1 Pcs
16	Miltex Skin Hook, 2 mm	2 Pcs
17	Yanker Suction Tube	1 Pcs
18	Forceps Holder 8" (20.3 cm)	1 Pcs
19	Forceps Holder 10" (25.4 cm)	1 Pcs
20	Forceps Holder 12" (30.5 cm)	1 Pcs
21	Knife handle No 3	2 Pcs
22	Knife handle No 4	2 Pcs
23	Knife handle No 7	1 Pcs
24	Operating Scissor 5 1/2 (14 cm) Str. S/B	1 Pcs
25	Mayo dissecting Scissors 6 3/4 (17.1 cm) Str., Carb-N-Sert blades	1 Pcs
26	Mayo dissecting Scissors 6 3/4 (17.1 cm) Cvd., Carb-N-Sert blades	1 Pcs
27	Metzenbaum scissors 7" (17.8 cm) , Cvd, carb-N-Sert blades	1 Pcs
28	Metzenbaum scissors 9" (22.9 cm) , Str, carb-N-Sert blades	1 Pcs
29	Metzenbaum scissors 9" (22.9 cm) , Cvd, carb-N-Sert blades	1 Pcs
30	Thumb Dressing Forceps 5 1/2 (14 cm)	1 Pcs
31	Tissue Forceps 5 1/2 (14 cm) 1x2 T	1 Pcs
32	Adson Dressing Forceps 4 3/4" (12.1 cm) , Serr	1 Pcs
33	Adson Dressing Forceps 4 3/4" (12.1 cm) , 1x2 T	1 Pcs
34	Russian Tissue Forceps 8" (20.3 cm)	1 Pcs
35	Cushing Dressing Forceps 7" (17.8 am), serr.	1 Pcs
36	Cushing Dressing Forceps 7" (17.8 am), 1x2 teeth	1 Pcs
37	Halsted Mosquito Forceps 5" (12.7 cm) str.	6 Pcs
38	Halsted Mosquito Forceps 5" (12.7 cm) Cvd.	6 Pcs
39	Kelly Forceps 5 1/2" (14 cm) Str.	6 Pcs
40	Kelly Forceps 5 1/2" (14 cm) Cvd.	12 Pcs
41	Rochester-pean Forceps 6 1/4" (15.9 cm), Cvd	6 Pcs



42	Rochester-pean Forceps 8" (20.3 cm), Cvd	2 Pcs
43	Rochester-Ochsner Forceps 6 1/4" (15.9 cm), str 1x2 teeth	4 Pcs
44	Mixer Forceps 7 1/4" (18.4 cm), fully cvd.	1 Pcs
45	Mixer Forceps 9" (22.9 cm)	1 Pcs
46	Baby Mixer Foreps 5 1/4" (13.3 cm), fully cvd.	1 Pcs
47	Backhaus Towel Clamp 5 1/4" (13.3cm)	8 Pcs
48	Forster Sponge Forceps 9 1/2" (24.1 cm). Str. Serr.	1 Pcs
49	Mayo-hegar Needle holder 6" (15.2 cm), Carb-N-Sert Jaws	1 Pcs
50	Mayo-hegar Needle holder 7" (17.8 cm), Carb-N-Sert Jaws	1 Pcs
51	Mayo-hegar Needle holder 8" (20.3 cm), Carb-N-Sert Jaws	1 Pcs
52	Mayo-hegar Needle holder 10 1/2" (26.7 cm), Carb-N-Sert Jaws	1 Pcs
53	Poole Suction tube, str	1 Pcs
54	Goelet Retractor	2 Pcs
55	U.S. Army retractor, set of 2	1 Pcs
56	Ribbon Retractor 3/4" (1.9 cm) x 13" (33 cm)	1 Pcs
57	Ribbon Retractor 1 1/4" (3.2 cm) x 13" (33 cm)	1 Pcs
58	Ribbon Retractor 2" (5.1 cm) x 13" (33 cm)	1 Pcs
59	Deaver Retractor 1" (2.5 cm) x 12" (30.5 cm)	1 Pcs
60	Deaver Retractor 2" (5.1 cm) x 12" (30.5 cm)	1 Pcs
61	Richardson retractor, small	1 Pcs
62	Richardson retractor, large	1 Pcs
63	Kelly Retractor 2 1/2" (6.4 cm) x 2" (5.1 cm)	1 Pcs
64	Balfour Retractor w/interchangeable blades	1 Pcs
65	Lahey Gall Duct Forceps 7 1/2" (19.1 cm)	2 Pcs
66	Allis Tissue Forceps 6" (15.2 cm), 4x5 T	2 Pcs
67	Allis Tissue Forceps 10" (25.4 cm)	2 Pcs
68	Babcock Tissue Forceps 6 1/4" (15.9 cm)	2 Pcs
69	Babcock Tissue Forceps 9 1/4" (23.5 cm)	2 Pcs
70	Stainless Steel Ruler	1 Pcs
71	Schmidt Tonsil Forceps 7 1/2" (19.1 cm)	4 Pcs
72	Debaquey Tissue Forceps 8" (20.3 cm)	1 Pcs





Myomectomy instrument (Myoma screw, Boney's clamp)

**IV. Instruments**

- Gynaecological general set
- 2 other valuable items:
- 1. Myoma screw
- 2. Bonney's myomectomy clamp

applied across the base of the uterus at the junction of the body and cervix uteri, softly occluding uterine arteries as they pass up the lateral side of the uterus.

## Diagnostic laparoscopy set

### Specifications of the Laparoscopic Set

Detail approximate

- 1) Laparoscopic Video Monitor (High definition Television) HDTV: 1 no.  
Full digital HDTV compatible, superhigh resolution image with stable and flicker free image quality. Large LED screen provides clear, easy –to- see image with lower power consumption.

- 2) Laparoscopic Camera with control unit: HD camera: 1 no.  
It should have unprecedented colour reproduction and highest degree of fidelity. It also should have horizontal image resolution. Compatible with all flexible videoscopes and video laparoscopes. Autoclavable manual and auto white balancing system.
- 3) Light source Xenon ( $\geq 300$  watt): 1no.  
It should have high intensity for sufficient illumination of whole abdomen and compatible with HD camera. Light intensity continuously, manually adjustable.
- 4) Fiber optic cable (5 mm & 250 cm): 1no.
- 5) HD Video system with video recorder.
- 6) Laproflattor: 1 no.  
Electronic CO<sub>2</sub> laproflattor with tubings. High degree of safety, large display for status checking and powerful 35 L/min insufflations and responds to abdominal gas leaks by quickly returning to the preset level with automatic overpressure release for patient safety.
- 7) Laparoscopic suction irrigation machine or pelvis cleaner system –Laparo –pump & holder for irrigation stand reusable tube set, power supply cable, Hygiene filter for aspiration, aspiration container, 3L autoclavable pack & mounting for securing aspiration container to irrigator stand & suction irrigation tube set.
- 8) Electro-surgical unit with accessories:  
It should have high frequency surgical unit more than adequate for all surgical procedures, can set a lower limit. Power –pack system gives intelligent cutting and coagulation support for initial incisions for all situations. Bi –polar coagulation has to be included in the above unit. Sophisticated self –check program: Minimum power consumption and patient’s safety in top quality must be present. Cut control for consistent regulation of cutting quality & soft coagulation with no carbonization to reduced adhesive effect. Neutral electrode safety system. Auto start and auto coagulation during bipolar coagulation. Digital error code displays electronic memory.

## Hand instruments for Laparoscopy:

- i) Veress needle : It should be with spring action blunt style 12
 

cm :	1 no
10 cm :	1 no
8 cm :	1 no
- ii) Trocar and cannula:
 

10 mm :	2 nos
7 mm :	1 no.
5 mm :	6 nos

It should consists of trocar, cannula with insufflation stopcock and multifunctional valve and must have pyramidal tip.

- iii) Reducer /reduction sleeve 5 mm: 1 no.
- iv) Telescopes:
 

10 mm	-	$0^0$	-	1no
		$30^0$		1no
5 mm	-	$30^0$		1no

Rigid rod lens system provides good resolution and the better dept perception. It should have uniform image brightness and autoclavable. The  $30^0$  forward oblique angle and permits for greater latitude for viewing underlying areas under difficult anatomical conditions.

- v) Suction Cannula : 10 mm - 1no  
5 mm -1 no

- vi) Laparoscopic scissors:

Curved (Monopolar Metzenbaum dissector 5mm diameter): 1 noStraight

(Bipolar) : 1no

Peritoneal scissor : 1no

- vii) Unipolar forceps (Hook & spatula) : 2nos
- viii) Bipolar forceps : 2nos
- ix) Atraumatic forceps: Maryland Dissector forceps: : 2 nos.  
Fenestrated forceps: : 2 nos.
  
- x) Needle Holder (flat jaw) with handle : 2nos
- xi) Monopolar cable (reusable) : 1no.
- xii) Bipolar cable (reusable) : 1no
- xiii) Allis ( double row of teeth ) grasper : 1no
- xiv) Aspiration needle : 1no.
- xv) Reducer/ Reduction sleeve (5mm) : 1 no
- xvi) Grasping forceps (toothed & ratchet 5mm) : 2nos
- xvii) Laparoscopic knot pusher : 1no
- xviii) Clip applicator (reusable) : 5mm - : 1no  
: 10 mm : 1no
- xix) Uterine Manipulator : 1no
- xx) Clips( medium & large)
- xxi) Drilling needle : 1no
- xxii) Infiltration needle : 1no
- xxiii) iopsy forceps ( toothed punch biopsy) : 1no

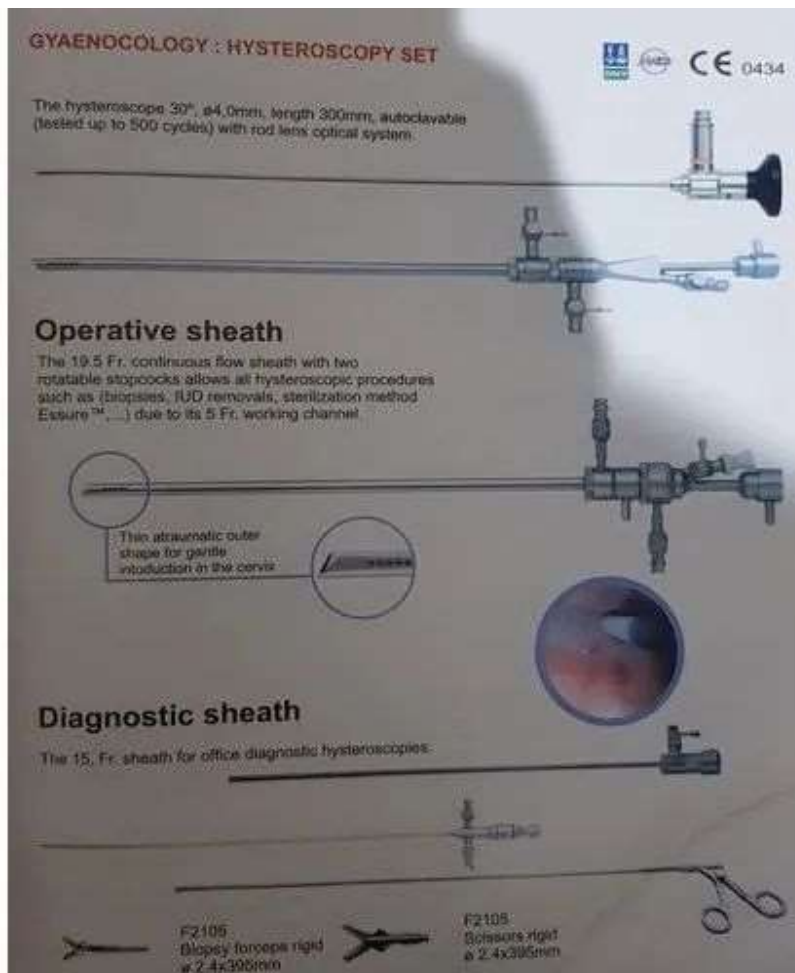
- xxiv) Myoma fixation screw : 2nos
- xxv) Tissue morcellator with base unit & accessories : 1no
- xxvi) Vessel sealing: Enseal :

9) 3 KVA UPS for use of Laparoscopic set.

## Laparocator for tubal ligation

### Specification:

### Operative Hysteroscopy set



## **Electronic carbon dioxide insufflator/insufflator basic unit**

Apparatus shall be used to measure the CO<sub>2</sub> levels in organic fermented solutions used in the preparation of organic mortars.

The CO<sub>2</sub> levels shall be measured in ppm up to 1,00,000 ppm.

Specifications:•

1. Type of Sensor – NDIR (Non-Dispersive Infra-Red)
2. Range of measurement – 0 to 1,00,000 ppm
3. Resolution – 1 to 3 ppm
4. Connection – Bluetooth 4.0 or USB
5. Battery life -  $\geq$  18 hours of continuous use
6. Accuracy - 0 to 1,000 ppm:  $\pm$  100 ppm, 1,000 to 10,000 ppm:  $\pm$  5% of reading + 100ppm, 10,000 ppm to 50,000 ppm:  $\pm$  10% of reading, 50,000 - 100,000 ppm:  $\pm$  15% of reading
7. Warranty of the Sensor and Battery.
8. Calibration certificate and its procedure to be shared.
9. Technical Service should be provided.
10. Software provision for data analysis need to be provided. Accessories: Sample bottles (250 ml capacity) – 04 Nos•

## **Fetal Monitor for Antepartum Surveillance**

1. The system should be Microprocessor based Foetal Monitor providing continuous monitoring of foetal heart rate (FHR) alongwith maternally sensed foetal activity during antepartum testing for NST (Non-StressTest) and for intensive monitoring of active labor, with twin foetal monitoring facility at the same time.

2. Transducer

i Type: Multicrystal wide –beam transducer.

ii Technique: Autocorrelation.

iii Quantity :2 nos (FHR 1, FHR 2)

iv Frequency : 1MHz to 2 MHz.

v Intensity : Less than 10mW/Sq cm.

vi Resolution: 1BPM.

vii Heart Rate counting Range: 30 to 250BPM.

3. Printer : Facility to print on Inbuilt thermal printer (On thermal paper) as well as on plain paper via any Deskjet/Laser printer ( Should provide connectivity for Deskjet/Laser Printer).

i Paper : Z –fold Pre-printed chart scale.

ii Speeds: 1 to 3cm/ minute.

4. Features:

i 1. Twin fetal monitoring with TOCO transducers – 01 No.

ii 2. It should have clinical event marker.

iii 3. It should have monitoring of Bradycardia & Tachycardia alarm events.

iv 4. It should have facility to control the volume of FHR sound.

v 5. It should have battery back up of 4-6 hours.

vi 6. Power Supply: 230Vac, 50/60Hz 5 Accessories :

i 1. Should provide rechargeable battery along with recharging unit (Charger/ Adaptor).

ii 2. Should provide a pre-cut non-fray elasticized belt with buckle shall enable easy transducer positioning for more accurate traces.- 03Nos.

iii 3. Vibroacoustic stimulator – 01 No.

6 Display:

i 1. Display Minimum 5”.

ii 2. Actual FHR1 & FHR2 in BPM.

iii 3. Uterine Contraction/Activity in %.

iv 4. High / Low FHR limits.

v 5. Alarm Message Display.

vi 6. Battery charging and Low indication.

vii 7. Blinking corresponding to each beat

7 Patient Database: It should store more than 10 hours, memory to store all the data. In case the printer goes out of order, machine should continue monitoring and then download to printer afterwards for printing or be viewed.

8 Computer interface through RS232 connection.

9 Unit quoted should have unique model number.

10 Units supplied should hold a unique Serial/Identification number.

11 Two years comprehensive warranty.

12 Should be CE (Should be from Notified Body) or US FDA Approved

14 Should Provide Extra Ultrasound Transducer- 01 No. & TOCO Transducer – 01 No., pre-cut nonfray elasticized belt- 17Nos.

15 Demonstration is compulsory

16 Should Provide Training to the end user and Biomedical Engineer.

17 Tropicalisation:

1. Operating room temp. 40deg.

2. Storage room temp. 60deg.

3. Relative Humidity 90% Non-condensing 18 Should quote Cost of AMC and CMC separately.

19 Should Provide Service, Spare parts and consumables support for Ten years.

**Ultrasound machine with Doppler/Vaginal probe/facilities for Interventional procedure**



1. system should have dedicated presets for application- Abdominal, Obstetrics & Gynaecology, vascular, paediatric, small parts, MSK, fetal Echo, urology, TDC, interventional radiology
2. System must be offered with a minimum 19 inch High resolution flat panel Medical grade display monitor with nearly infinite position adjustments.
3. System must be offered with 4D imaging with quantification software for general imaging and obstetrics & gynaecology applications.
4. System should have tomographic ultrasound imaging quantification to analyze multiple parallel slice of a volume data set, Review of 3D/4D, color 3D data set
5. System should have at-least Four universal active probe ports with electronic switching facility.
6. System should have minimum 1000 frames per second or more. Please specify through data Sheet.
7. The system should have 2 Lac or more digital processing channels.
8. System should support multi-frequency/broad band probes spanning a frequency of 2-16 MHz or even better
9. B mode & color mode should be available simultaneously side by side real time display. Digital zoom facility for region of interest in real time and frozen.
10. Image storage facility on inbuilt hard disc or CD/DVD-Rw facility should be available. In built
11. hard disc with capacity of 500 GB. System should have extensive image management capability including thumb nail review, cineloop editing etc.
12. Auto trace & automatic Doppler calculations should be available in Live & frozen images.

13. Should have the state of the art Transmit Real time Compound Imaging Technology with multiple transmitted lines of sight, wherein Multiple Coplanar images from different viewing angles are obtained and combined into single compound Image at real-time frame rates for improves visualization.

14. System must be offered with speckle Reduction imaging technology to remove speckles and clutter artifacts

15. System should be capable of scanning depth of 30 cm.

16. System must be offered with a 2D frame rate of least 1000 frames/second.

17. System must be offered with user friendly high resolution user interface 9 " touch panel and backlit keyboard. User friendliness will be given priority.

18. Fully optimized CEUS mode should be available with simultaneous acquisition of B-mode and Contrast images in real-time in full screen or Side-byside display. Micro-vascular Imaging, and persistence imaging should preferably be available to assess slow micro-vessel perfusion

19. System should have THI & should be able to work in combined mode of harmonic imaging and real time compound imaging to get excellent image quality

20. System should be capable of FUSION / navigation to allow Fusing real time ultrasound images with images acquired from other imaging modalities such as eg. CT,MRI,PET.

21. The system shall be capable of providing a " GPS" alike functionality. This allows the operator to mark a specific point of interest within the image (e.g. Liver lesion). While moving the transducer, the system indicates position and distance relative to the marked target.

22. The system should be quoted along Elastography imaging for Breast & Thyroid on appropriate probe and convex probe for liver.

23. The system should be DICOM ready.

24. System should have inbuilt Gel Warmer
25. Following probes to be quoted as standard
  26. 1-5 MHz Convex Transducer with +/- 1 MHz variation accepted for General Imaging, Renal, OB/GYN, abdominal imaging with capabilities of CEUS. Must have Tissue Harmonic Imaging. Probes must have compatibilities of Elastography Imaging of Liver.
  27. 4-10 MHz Linear Array Transducer with +/- 1 MHz variation for entirely covering frequency range accepted for Vascular, breast, Musculoskeletal, small parts, elastography imaging.
  28. Broad band Endocavitary Probe for TV/TR Application with frequency range between 5 to 9 MHz +/- 1 MHz variation with reusable biopsy guide
  29. 2-6 MHz Broadband 4D volume transducer, with +/- 1 MHz variation for entirely covering frequency
  30. 5-16 MHz Matrix Linear probe, +/- 1 MHz variation for entirely covering frequency
  31. Only US FDA Approved model should be offered.

### **Fetal Doppler**

#### **Technical Specification**

- Light Weight, handset, portable
- High resolution LDC display
- Audible & visual alarm
- Ultrasound Probe – Solid, Anti-shock, Durable
- Built-in-loudspeaker
- Support 2MHz, 2.5MHz, 3MHz, 4MHz, 8 MHz water proof probes
- Monitor 12 seeks above unborn baby's blood wall pulsate.
- Ultrasound probe: solid and durable, anti-shock, anti-falling down
- Ultrasound frequency: 2/2.5/3 MHz
- Power: AC 220V 50Hz, Built in 9.6V rechargeable batteries.,

- Power Source: AA (9.6V rechargeable) batteries, AC/DC Adapter
- Temperature (working): +5°C~+40°C Humidity (working):≤80%

### **Portable ultrasound with color doppler**

Specifications :

1. Fully digital portable ultrasound machine with provision for Doppler examinations.
2. The unit should have a laptop type console design. The unit should be compact, lightweight and portable. Weight should not exceed 7kg including battery (excluding cart and accessories).
3. It should be suitable for abdominal, small parts and vascular applications in adults and pediatric patient. Multiple preloaded as well as user configurable application presets should be available.
4. Minimum grey scale resolutions to be 256 with 1024 or more digital processing channels.
5. Maximum scanning depth to be 30 cm or more.
6. The system to have a dynamic range of 165 decibels or more.
7. The system should support Convex and Linear probes.
8. Transducers (one each):
  - (1) Convex electronic phased array transducer:2-6 MHz for abdominal imaging.
  - (2) Linear transducer: 5-12 MHz for vascular and small part imaging.
9. All transducers should be lightweight digital phased array broadband type transducers with at least 1024 elements.
10. The system should have a frame rate of at least 600 frames per seconds (fps) in B mode and more than 300 fps in /Colour mode.
11. The system should have an ergonomic full alphanumeric soft keys keyboards with easy access scans control and trackball. Provision for attaching an external keyboard and mouse should be present.
12. The System must have integrated high-resolution TFT/LCD/Single monitor of 15 Includes or more.

13. The Systems should have cine loop review facility of not less than 60 sec/1000 frames.
14. System should have 120 GB or higher capacity internal HDD.
15. The system should have the facility of digital storage and retrieval of B/W and color image data on built in CD/DVD Drive. Provision for USB port and LAN transfer of data should also be present.
16. Imaging modes of Real time 2D, Colour Doppler, Pulsed wave Doppler and Power (energy) Doppler should be available.
17. Controls for 2D mode: Total gain, depth, TCG, dynamic range, acoustic power output.
18. Controls for Colour Doppler: PRF, colour gain, position and size of ROI , steering of ROI, colour maps and colour invert.
19. Controls for pushed Doppler: variable sample volume size from 1 to 5mm or more, steer, PRF, baseline, gain angle correction, spectral invert duplex on/off.
20. Measurements for 2D mode: Multiple distances, area and volume.
21. Measurement for Doppler modes: Stenosis quantification in area percentage, Diameter, PSV, EDV, means, PI, RI, acceleration time and index. Automatic and manual measurements and display of pulsed Doppler calculations should be possible.
22. Facility for storage on CDR should be possible.
23. Unit should function with 200-240 V, 50 Hz AC, 5 amp power outlet power requirement to be specified
24. In built battery backup should be at least one hour or more.
25. Essential accessories: Black & White Thermal printer and color laser printer, UPS, mobile cart with transducer holder, jelly bottle holder and space for printer.
26. Paper and cartridges for 1000 image printouts should be provided with the unit.
27. The unit offered must be sturdy and should be able to withstand accidental hits and falls during transportation.
28. The unit offered in the tender will require technical demonstration.

29. Photocopy of purchase orders along with terms and conditions of contract received from twenty Govt. /Public Sector institution/private teaching collage of repute in the last two years for supply of the offered equipment must be enclosed with the price bid.

30. Price of the main unit and accessories to be quoted separately.

31. Warranty: The unit transducers and all accessories should be covered with comprehensive onsite warranty for five (5) years commencing from the date of issue of installation certificate.

32. Rates for comprehensive maintenance contract CMC (including all spared and labour) for 5 years, after expiry of warranty period, must be quoted separately.

33. Photocopy of purchase order along with terms and conditions of contract received from any Govt. /Public Sector institution/Private teaching collage of repute in the last two years for supply of the offered equipments must be enclosed with the price bid.

34. Company should have an established Registered Service Centre with address and phone numbers at Delhi/Rajasthan. Company should give undertaking regarding the spare availability of the quoted model for next seven years.

35. The bidder should enclose the original product data sheet, brochure and compliance sheet, without which the bid rejected. Computer generated data sheet brochure will not be accepted. The serial number of specifications must be indicated against the relevant portion of the compliance sheet and data sheet.

36. The unit should be United States Food and Drug Administration (FDA) and ConformityEuropeans (CE) approved.

### **Resectoscope**

1. Description: Standard Resectoscope for trans-urethral resection of Prostate and bladder tumors consisting of :

A. Forward oblique 30o telescope, enlarged view,, diameter 4 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated

B. Working element (passive type) bipolar, HF cord for monopolar & bipolar working element.

C. Resectoscope Sheath 26 Fr., continuous flow, consisting of one outer sheath, one rotatable inner sheath and Outer sheath diameter 26 Fr. And inner sheath diameter 24 Fr. One blunt obturator

D. HF cutting loop electrode, 30O angled, bipolar, for use with resectoscope working element

E. HF rollerball electrode, ball dia: 3 mm, bipolar for use with resectoscope working element

F. HF Knife electrode, ball dia: 3 mm, bipolar for use with resectoscope working element

G. Monopolar & bipolar cable for electro-surgical unit

### **Hysteromat**

#### **DOUBLE ROLLER IRRIGATION AND SUCTION IRRIGATION DEVICE**

- CONTROLLED IRRIGATION AND SUCTION UNIT FOR OPERATING HYSTEROSCOPE AND TCRE PROCEDURE.
- TO MAINTAIN INTRAUTERINE CAVITY PRESSURE AS DESIRABLE BY SURGEON.
- PRESSURE OF IRRIGATION TO BE MAINTAINED BETWEEN: (PRESSURE 100- 400mmHg).
- FLOW TO BE MAINTAINED BETWEEN: (Flow 200-1300ml/L.)
- Suction controlled pressure between 0-(-50kPa)
- Should have two-pedal foot switch for controlling various functions.
- Should maintain a preset intrauterine pressure and simultaneous continuous flow.
- Should have a touch screen user interface with selection modes.
- Should be able to inform the current status of pressure and flow through visual or acoustic messages.
- Should have automatic instrument recognition with set parameters.
- Alternatively, Both the rollers can also work independently.
- Should have Blood /Mucous mode to rinse particles more rapidly to give clear view.
- Should have provision to connect to communication data BUS. Unit should consist of –
- MAIN UNIT WITH TOUCH SCREEN PANEL, DOUBLE ROLLER PUMP, PRECONFIGURED PROCEDURE OPTIONS, POSSIBILITY TO CREATE OWN

PROCEDURES, PUMP HEAD, AUTOMATIC DOME DETECTION FACILITY,  
CONTROLLED SUCTION/IRRIGATION FUNCTION.

Should be supplied along with following accessories:

- Single use Basic Tubing Set, package of 10
- Single use Suction Tubing Set, package of 10
- Single use Irrigation Tubing Set, package of 10
- Suction bottle 5.0L 2 Nos.
- Suction bottle cap with stand
- Suction tubing set reusable 2 Nos

**Dressing sets**

- 1 Mayo scissors straight 1 No
- 2 Dissecting scissors 1 No
- 3 Lister bandage scissors 1 No
- 4 Sponge holding forceps 2 No
- 5 s/s bowl 1 No
- 6 Kidney tray s/s 10 1 No
- 7 Dissecting forceps 1×2 teeth 2 No
- 8 Dissecting forceps serrated jaw 2 No
- 9 Instrument container s/s with cover 1 No

**Suture removal sets**

- 1 Sponge holding forceps 1 No
- 2 Suture removal scissors 1 No
- 3 Dissecting forceps 1×2 teeth 2 No
- 4 Dissecting forceps serrated jaw 2 No
- 5 Handle for surgical blade 1 No



6 s/s bowl 1 No

7 Instrument container s/s with cover 1 No

#### **CERVICAL EXPLORATION SET & UTERINE PACKING FORCEPS**

Specifications:

- The cervical exploration set should contain the following instruments given below in the tabular format with their numbers and with brief description regarding the size required, for operational ease.
- All instruments should be made up of high quality stainless steel & corrosive resistant, long durability & reusable, rust resistant and essentially conform to BIS/ISO standards.

1 S.S. Tray with lid – 9” x 6” 1 No

2 S.S. Bowl - medium 1 No

3 Sponge holding forceps 4 No

4 SIMS Speculum – Double bladed - large 4 No

5 Anterior Vaginal wall retractor 1 No

6 Needle holder 1 No

7 Artery Forceps – long – 8” – straight 1 No

8 Artery Forceps – long – 8” – curved 1 No

9 Mosquito Forceps – 5” – curved 1 No

10 Uterine Packing Forceps 1 No

#### **IUCD insertion/removal set**

Specifications:

The Cu T / IUCD set should contain the following instruments given below in the tabular format with their numbers and with brief description regarding the size required, for operational ease.

All instruments should be made up of high quality stainless steel & corrosive resistant, long durability & reusable, rust resistant and essentially conform to BIS/ISO standards.

- 1 S.S. Tray with lid – 9" x 6" 1 No
- 2 S.S. Bowl - Medium 1 No
- 3 SIMS Speculum – double bladed – medium sized 3 No
- 4 Anterior vaginal wall retractor 1 No
- 5 Vulsellum 1 No
- 6 Uterine Sound 1 No
- 7 Artery Forceps – 8" long – straight 1 No
- 8 Cu T Removal Hook 1 No
- 9 Kelly's Forceps 1 No
- 10 Sponge holding Forceps 3 No

#### **Delivery sets**

- 1 Needle Holder(15cm) /20cm 1 No
- 2 Kidney Tray s/s 12 1 No
- 3 Kidney Tray s/s10 1 No
- 4 Gallipot 10 02/4 1 No
- 5 Umbilical cord scissors s/s (10.5cm)/4 1 No
- 6 Mayo scissors (straight) s/s 1 No
- 7 Sponge holding forceps 1 No
- 8 Episiotomy scissors 1 No
- 9 Dissecting forceps 1× 2 Teeth 5 1/8 1 No
- 10 Dissecting forceps serrated jaw 5 1/8 1 No
- 11 Spencer well artery forceps straight 8 2 No

12 Spencer well artery forceps curved 8 2 No

13 Spencer well artery forceps straight 6 2 No

### **Diagnostic laparoscopy set**

- Telescope 10 mm- 0 degree
- Specification
- High speed rod lens system
- Scratch resistant
- Adaptability to high intensity Xenon light 300 watts
- Trocar size 5/6mm
- Trocar only, with pyramidal tipcannula without valve, with insufflations Trocar size 10/11mm- Trocar only, with pyramidal tipcannula without valve, with insufflations stop –clock, length 10.5 cm Reducer 11/5 mm-Coagulating & Dissecting Electrode, L- shaped, with connector pin for unipolar coagulation, size 5 mm, working length 36 cm
- Maryland dissector curved with fine horizontal serrations double jaw. size 5 mm, length 36 cm
- high frequency cord for bipolar instruments; length 300 cm
- fiber optic light cable, size 4.8 mm, length 250 cm
- endovision Cemra 3 chip
- color system power supply : 100-240 VAC, 50-60Hz
- suction & irrigation cannula 5 mm & 10 mm verrees pneumoperitoneum needle
- metzenbaum scissors with connector pin for unipolar coagulation- Straight, Curved Monopolar high frequency cordPCOD Needle
- Babcock's Laparoscopy forceps –20 mm

### **Cutdown set**

- Forceps, Artery, Curved, 45mm.....3
- Forceps, Artery, straight, 145mm.....3
- Forceps, dissecting, straight, ½ Teeth, 145mm.....1

- Forceps, dissecting, straight, plain 180mm.....1
- Hook Skin, Gilles, and 180mm.....1
- Handle for Surgical Blade No.3.....1
- Needle holder, 150mm.....1
- Scissors, ligature, Spencer, 115mm.....1
- Instrument Container, s/s with cover.....1

**D&C set**

- Hegar dilator – 1
- Spong holding forceps- 2
- Curette – 2
- Blunt Sharp- 2
- Allie Forcep -2
- Sims Speculm – 2
- Anterior Vaginal Wall Retractor -1
- Ovum Forceps-1
- Vullsellum -1
- Uterine Sound-1
- Small Bowl- 2
- Kidney Tray- 1

**MTP set**

S. No.	Instruments/ Specification	Quantity
1	Instrument SS tray 25x30 cm	2
2	Sponge holding forceps 24-26 cm	4
3	Sim's Speculum Small Medium 2	2
4	Sim's Uterine Depressor double ended 24-26 cm	2

5	Teale Uterine volsellum forceps 24-26 cm	2
6	Uterine sound curved malleable 29-30 cm	2
7	Hegar's dilator double ended- set of 8-10, upto 16 mm	2
8	Uterine curette (blunt and sharp ends) 26-29 cm	
	8x5	2
	10x7	2
	14x9	2
9	Ovum forceps 24-26cm	
	6mm	2
	8mm	2
	10mm	2
10	Vant Uterine Polyp forceps 23-25 cm	2
11	Female metal catheter:	
	No. 14	2
	No. 12	2

**Set for LSCS**

- 1 Sponge Holding Forceps 25cm
- 4 Green Armytage Forceps
- 6 Artery Forceps cvd 15cm
- 6 Artery Forceps St 15cm
- 4 Alice Tissue Forceps Medium 15cm
- 4 Alice Tissue Forceps Large 15cm
- 2 Beacock Tissue Forceps 15cm
- 2 Toothed Forceps 15 cm

- 2 Dissecting Forceps Toothed 15cm
- 2 Dissecting Forceps Non Toothed 15cm
- 1 Needle Holder Mayo Heger 15 cm
- 4 Kell's Clamp 15cm
- 1 Suction Tip
- 1 Tissue Cutting Scissors 17.5cm
- 2 B.P.Handle no4
- 4 Towel Clip Cross Action
- 1 Bowl 20"
- 1 Doyen Retractor 5 cm
- 1 Morr's Retractor 5cm
- 1 Self Retaining Retractor
- 1 Dever's Retractor 5 cm
- 1 Instruments Bag

#### **Cervical biopsy set**

- 1 SS Kidney tray 1
- 2 SS Bowl 1
- 3 Cervical Punch Biopsy Forceps 1
- 4 Sponge Holding Forceps 2
- 5 Vulsellum 1
- 6 Long Straight Artery 1
- 7 Sims double bladed Speculum 2

#### **Postpartum ligation set**

1	Knife handle No 3	1 Pcs
2	Knife handle No 4L	1 Pcs
3	Mayo dissecting Scissors 6 3/4 (17.1 cm) Str., Carb-N-Sert blades	1 Pcs

4	Metzenbaum scissors 7" (17.8 cm) , Cvd, carb-N-Sert blades	1 Pcs
5	Tissue Forceps 5 1/2" (14 cm), 1x2 T	1 Pcs
6	Russian Tissue Forceps 10" (25.4 cm)	1 Pcs
7	Kelly Forceps 5 1/2" (14 cm) Cvd.	6 Pcs
8	Rochester-pean Forceps 8" (20.3 cm), Cvd	2 Pcs
9	Gemini-Mixter Forceps 11" (27.9 cm)	2 Pcs
10	Backhaus Towel Clamp 5 1/4" (13.3cm)	6 Pcs
11	Forster Sponge Forceps 9 1/2" (24.1 cm). Str. Serr.	1 Pcs
12	Heaney Needle holder 8" (20.3 cm), cvd,. Carb-N-Sert Jaws	1 Pcs
13	Heaney-Simon Retractor 11 1/2" (29.2 cm)	1 Pcs
14	Deaver Retractor 1" (2.5 cm) x 12" (30.5 cm)	1 Pcs
15	Allis Tissue Forceps 6" (15.2 cm), 4x5 T	4 Pcs
16	Allis Tissue Forceps 7 1/4" (18.4 cm), 5 x 6 T	2 Pcs
17	Babcock Tissue Forceps 8 1/4" (21 cm)	2 Pcs
18	Graves Vaginal Speculum, Medium Size	1 Pcs
19	Auvard weighted Speculum, 2 1/2 lbs. (1136 g)	1 Pcs
20	Sims Uterine sound, grad. In cm	1 Pcs
21	Schroder Braun Tenaculum Forceps 9 1/2" (24.1 cm) Str	2 Pcs
22	Heaney Hysterectomy Forceps 8 1/4" (21 cm), double tooth	2 Pcs

### **Outlet forceps**

- Wrigleys outlet forceps 23 cm – 28 cm

## **Speculum and retractors**

### **SIMS Speculum**

- 30 speculums should be provided in the following sizes
- double bladed : small size – 10, medium size – 10, large size – 10
- High quality stainless steel & wear and tear resistant, corrosion resistant, long durability & Reusable.

### **Cuscos Speculum**

- Self Retaining
- Fine quality, Medium Size
- High quality stainless steel, Corrosion Resistant, Long durability, Reusable.

### **Anterior vaginal Wall Retractor**

- High quality stainless steel & wear and tear resistant,
- Corrosion resistant, long durability

## **Low mid cavity forceps/Keilland forceps**

- Long shanked forceps
- Overall length :380mm
- Material :Stainless stell premium OR-G
- Latex free

## **Doll and Dummy**

### **Specification**

1. The Newborn baby simulator should be designed for skills training in neonatal resuscitation. With anatomical accuracy and a product feature set designed to focus on the critical resuscitation skills required in the first ten minutes of a newborn's life.
2. Newborn simulator should accurately represents a full term infant.



3. The airway should be designed to allow for training in all aspects of newborn airway management including the use of positive-pressure airway devices, and the placement of EET tubes and LMAs.
4. The torso should include functionality to relieve a tension pneumothorax via needle decompression.
5. The patent umbilicus should have a manually generated pulse and can be catheterized for IV access.
6. New born baby simulator should have features for IO access in both legs.

#### Airway features

1. Positioning the newborn to simulate opening the airway via head tilt, chin lift or jaw thrust.
2. Positive Pressure Ventilation (BVM, T-Piece resuscitator, or anesthesia bag).
3. ET tube intubation.
4. LMA insertion.
5. Orogastric tube insertion.
6. Stomach distension (which ET is misplaced).
7. Suctioning (of the nares, nasopharynx, oropharynx, esophagus and the lungs via an ET tube) – Fluids should not be introduced into the airway.
8. Meconium module for suction removal.

#### Breathing features

1. Bilateral and unilateral (with mainstem intubation) chest rise and fall with mechanical ventilation.
2. Pneumothorax – Needle thoracentesis left mid axillary (pneumothorax).

#### Cardiac features

1. Manual chest compression at appropriate depth (1/3 AP) and force.

#### Circulation features

1. Manual umbilical pulse.

#### Vascular Access

1. Umbilical Vein/Artery access via patent umbilicus.
2. IO access in left and right lower leg, tibial tuberosity and medial malleolus.

#### **Other features**

1. Full articulation.

## **OPERATING MICROSCOPE**

### **SPECIFICATION**

1. CLASSIFICATION : CLASS 1
2. MAGNIFICATION : 6:1 motorized zoom activated through hand control ,foot switch control panel
3. WORKING DISTANCE :motorized focus +manual over ride
4. FOCUSING: min 224 or less – max 470 mm or more .
5. EYE PIECE : wide field eye piece for eyeglass wearers dioptre setting -5 d or less to + 5 d or more with adjustable eyecup interpupillar distance 55-75 mm
6. OBJECTIVE : multifocal length min 224 or less max 470 mm or more motorized focus with manual over ride
7. MAIN ILLUMINATION :should be 300 w xenon arc – indirect type illumination with stand by xenon with change over facility
8. FIELD DIAMETER :17-143 mm /10 x eyepiece
9. MAGNIFICATION RANGE: 1.5-1.2 x or more /10 x eyepiece.
10. CONTROL UNIT: graphic LED/LCD display having facility for adjusting speed of zoom and focus.
11. TYPE /STAND SYSTEM : floor stand with electromagnetic brakes modular /integrated ( compact design) configuration for each application
12. HAND GRIPS: controls for zoom focusing, recording, light intensity, adjustment, joy stick control preferable for finer adjustments of the microscope.
13. A sepsis for all controls: sterilize/disposable protective glass encasement for objective, sterilization components for all drive knobs /drapes .

14. OBSERVER : coordinated stereo co observation .stereo –co observation system for cranial procedures with additional observer unit at 180\* for final procedures

15. CONFORMITY: should comply with CE/FDA standard to assure quality and safety of the system.

16. ACCESSORIES : should have camera with integrated HD recording system –DVD digital recording system ,DVD burning ,USB storage device ,video format dvi ,DICOM COMPATIBILITY ,FIRE WIRE INPUT/OUTPUT ,video compression MPEG 4 still image JPEG/TIFF./BMPO ./GIFF

17. POWER SUPPLY : 220-240 vac +/- 10% 50 Hz

18. FEATURES : automated illumination brightness ,auto zoom synchronized illumination

19. VASCULAR FLUORESCENCE: should have vascular fluorecence (ICG). Rate to be quoted separately and the rate offered will be taken for evaluation

20. should be upgradable to :

1. Neuronavigation compatibility. The details of additional hardware required for up gradation shall be provided with technical bid. Rate to be quoted separately . The rate offered will not be taken for evaluation

2. Image injection facility and tumour fluorecence if available shall be quoted separately . This rate will not be taken for evaluation

21. Shall supply 32” or above LCD/LED monitor.

### **Female Pelvis**

Technical Specifications:

a. Should have hemi pelvis of adult female with anatomical landmarks like pelvic cavity, spine etc. Should have manual mechanical birthing system to enable the user to control the rotation and speed of fetus delivery etc.

b. Should have articulating fetal baby with adaptors to fit with the manual birthing system

c. Should be versatile to change the position of the fetus during the process of birth including descent, flexion, extension, internal and external rotation, restitution.

- d. Should have features for training normal and breech deliveries.
- e. Should have inflatable cushions to lift fetus for Leopold manoeuvre during pregnancy
- f. Shall have adaptive birth canal to demonstrate dystocia and deal with its relief
- g. Should have features to demonstrate cord prolapsed
- h. Shall allow demonstration and practice of placenta previa
- i. Should have cervical dilatation attachment for closed Os.4cm, 6cm, 8cm and fully dilated cervix
- j. Should have features simulating represent conditions of the cervix an vagina prior to labor during labor and at birth in a primi gravid woman

Additional Accessories :

- i. One detachable padded stomach cover
- ii. Detachable Manual or mechanical birthing system with flange
- iii. One fully articulating fetal baby with adaptors to fit with manual birthing system
- iv. One elevating cushion for Leopold maneuvers
- v. 6 detachable dilating cervices
- vi. 6 detachable Vulva
- vii. 9 Vulvar inserts
- viii. 6 Placentas
- ix. 9 umbilical cords
- x. One 48 hour postpartum uterine activity assembly
- xi. One postpartum perineal insert.
- xii. Reusable episiotomy repair module (set of 3 including medial tears, mediolateral tears and standards mediolateral episiotomy)
- xiii. 2 Sets cervical dilatation attachment for closed Os, 4cm, 6cm, 8cm and fully dilated cervix

## **Specification**

1. The colour of the mannequin should be in Caucasian simulating Indian babies/adult in medium skin tones
2. The material of the mannequin should be polyvinyl and silicone rubber free from any carcinogenic agents
3. The texture of the mannequin should be soft and smooth and close to the feel of baby/ adult skin as relevant. The texture must be friction free to demonstrate the desired procedure
4. The internal parts of mannequin must be realistically sculpted anatomically accurate and feel must be smooth/resilient / bony as relevant and suitable for simulation
5. The mannequin's must be portable and any fittings used in mannequin's must be of aluminum or polycarbonate or equivalent
7. The material of the mannequin should withstand extremes of temperature (up to 45 degree Celsius)
8. The supplier must ensure manufacturer's warranty / guarantee against for the specifications and also manufacturing defects
9. The manufacturing units must have an internal system of quality control and supplier should produce the process and certificate from the manufacturers.
10. The supplier will be responsible for service, maintenance, replacement against any complaints up to the satisfactions of the users irrespective of the location of the manufacturing unit
12. All mannequins should include a soft / hard carrying case and study questions, Dos and Don'ts, instructions manual, maintenance guide, background information, videotape for demonstrating the use of mannequin, User manual with trouble shooting guidance, technical manual with maintenance and first line technical intervention instructions and any other relevant teaching / training materials in English.
13. The mannequins should have additional accessories as listed and also talcum powder or silicone gel to avoid friction, list of accessories and spare pans with cost and contact details of its supplier preferably within State

### **E.B. set**

### **Specification:**

**Set of instruments for teaching purpose**

**Specification:**