PRE-BID CLARIFICATIONS / AMENDMENTS IN RESPONSE TO THE QUERIES RAISED BY PROSPECTIVE BIDDERS IN THE PRE-BID MEETING HELD ON DT.06.03.2019 AT 11.00 A.M. AND SUBSEQUENTLY TECHNICAL COMMITTEE MEETING ON DT.16.04.2019 & Dt.29.04.2019 AT 11.00 A.M. IN THE CONFERENCE HALL, OSMCL FOR TENDER FOR SUPPLY & INSTALLATION OF SURGICAL, ONCOSURGICAL & ANESTHESIA EQUIPMENTS AT AHRCC-CUTTACK & GREEN LIGHT LASER AT SCBMCH-CUTTACK (Bid Ref. No. : OSMCL/2018-19/AHRCC-SURGERYEQUIPMENT/17)

Brief note on the Tender:

- Date & Time of release of bid -25.02.2019, 3 PM.
- Date & time of Pre-bid meeting - 06.03.2019, 11 AM.
- Date & time of Online bid submission Start Date - 13.03.2019, 3 PM.
- Date & time of Online bid submission End Date - 14.05.2019, 5 PM.

The tender was published in:

1. The Times of India
2. The Hindu
3. The Dharitri
4. The Sambad
5. OSMCL Website

- Total No. of prospective bidders/ representatives present in the pre-bid meeting are: **35 (Thirty Five)** and **30 Nos.** of query was received through mail/letter.

- The queries raised by the prospective bidders on the above mentioned tender reference were thread barely discussed on Dt.16.04.2019 & Dt.29.04.2019 and the following recommendations were made:

Sl. No.	Queries raised by the prospective bidders	Original Technical Specifications	Clarifications /Amendments
1. SURGICAL DIATHERMY UNIT WITH VESSEL SEALING SYSTEM			
1	The Model should be USFDA or CE certified. The model should be USFDA OR EUROPEAN CE certified	**Section-VII (Pg. No-57)** 1. The model should be USFDA and CE certified.	**Amended** The model should be USFDA or European CE approved product. CE must be issued by the notified agency. Accessories should be from same manufacturer.
2	The unit should have a large LCD/LED display having segment to show the various setting like mode, watt etc.	**Section-VII (Pg. No-57)** 2. The unit should have a large LCD/LED display having segment to show the various settings like mode, current, watt etc.	No Change
3	It should have a possibility to give names (procedures/surgeons name) to the individual programs (should be optional).	**Section-VII (Pg. No-57)** 4. It should have a memory for various types of surgery and with preference of various surgeons	**Amended** The availability of feature of memory for various types of surgery with preference of various surgeons is not mandatory.
4	It should have a possibility to give names (procedures / surgeons name) to the individual programs (should be optional).	**Section-VII (Pg. No-57)** 5. It should have a possibility to give names (procedures/surgeons name) to the individual programs.	**Amended** The availability of feature to give names (procedure/surgeons name) to the individual programs is not mandatory.
5	Should have reusable or disposable laparoscopic Vessel Sealing Instrument with or without integrated Blade having more ergonomic shape for Surgeon – straight and curve type.	**Section-VII (Pg. No-57)** 8. Should have reusable or disposable laparoscopic Vessel Sealing Instrument with integrated Blade having more ergonomic shape for surgeon – straight and curved type.	No Change
6	Bipolar coagulation should be Auto Start and Auto Stop The BIPOLAR coagulation should be with Auto-Start and Auto-Stop	**Section-VII (Pg. No-57)** 11. The Monopolar coagulation should be with Auto-Start and Auto-Stop.	**Amended** The Bipolar coagulation should be with Auto-Start and Auto-Stop.
7	Vessel Sealing clamp with Integrated cutting blade for open surgery – 5 nos. reusable with cable /20 nos. of Disposable. Different Seal and cut length of jaw like small, medium and large jaw Vessel sealing Clamps For Open Surgery – 5nos. Reusable with cable/ 250 nos. Of disposables	**Section-VII (Pg. No-57)** **The following accessories should be supplied with the unit:** d) Vessel sealing Clamps For Open Surgery – 5nos. Reusable with cable/ 20 nos. Of disposables	**Amended** Vessel Sealing clamps for open surgery – 5 nos. reusable with cable /25 nos. of disposable.
8	Vessel Sealing clamp with integrated cutting blade for laparoscopic surgery (Fenestrated and Maryland Equal Proportion) – 6 nos. reusable / 24 nos. disposable. (Ratio should be 1:4) Vessel Sealing clamp with integrated cutting blade for laparoscopic surgery (Straight and Maryland Equal Proportion) – 6 nos. reusable / 90 nos. disposable of the same manufacturer.	**Section-VII (Pg. No-57))** **The following accessories should be supplied with the unit:** e) Vessel sealing Clamps with integrated cutting blade For laparoscopic surgery (Fenestrated & Maryland equal proportion) – 6nos. Reusable /36 nos. Of disposables	**Amended** Vessel sealing Clamps with integrated cutting blade For laparoscopic surgery (Fenestrated / Maryland) – 6 nos. reusable /60 nos. Of disposables

	Vessel Sealing clamp with/without integrated cutting blade for laparoscopic surgery (Fenestrated and Maryland Equal Proportion) – 6 nos. reusable / 300 nos. of disposables		
9	Non Sticky/Coated bipolar forceps for open surgery – 10 nos. Non sticky Bayonet Bipolar Forceps for Open Surgery—10 nos., 1mm blunt tip, Size in between 19-21 mm & 22-23 mm, 5 no's of each of the same manufacturer.	**Section-VII (Pg. No-57)** **The following accessories should be supplied with the unit:** f) Non sticky Bipolar Forceps for Open Surgery- 10 Nos.	**Amended** Bayonet Bipolar Forceps (Non sticky/ Coated) for Open Surgery- 10 Nos., 1mm blunt tip, Size in between 19-21 mm & 22-23 mm, 5 no's of each of the same manufacturer. Laparoscopic bipolar coagulation Fenestrated instrument - 5 nos.
2.ULTRASONIC DEVICE CUM BIPOLAR VESSEL SEALING SYSTEM			
1	System has an universal single generator to connect Ultrasonic energy	**Section-VII (Pg. No-58)** 2. System should have an universal single generator to connect Ultrasonic energy and advanced Radio frequency (RF) energy instruments to reduce the clumsiness inside the theatre and increase the ergonomics.	NO CHANGE
2	System delivers pure ultrasonic energy	**Section-VII (Pg. No-58)** 3. Ultrasonic and bipolar energy in the system must work separately. Should deliver pure ultrasonic energy and RF energy separately.	NO CHANGE
3	Ultrasonic energy should be capable of sealing 5 mm blood vessel.	**Section-VII (Pg. No-58))** 5. RF and Ultrasonic energy should be capable of sealing 7 mm blood vessel	NO CHANGE
4	System should have the ability for software updates Communication Port System should have the ability for software updates	**Section-VII (Pg. No-58)** 7. System should have the ability for software updates via USB memory stick.	**Amended** System should have the ability for software updates.
5	System should have a double pedal footswitch for operating ultrasonic energy and changing power levels.	**Section-VII (Pg. No-58)** 9. System should have a single footswitch for operating ultrasonic energy or advanced RF energy instruments to reduce confusion as well as space during surgery	**Amended** System should have a single/double footswitch for operating ultrasonic energy or advanced RF energy instruments.
6	System should have the ability to select hand switch or foot switch activation for Ultrasonic and the ability to change selection during use	**Section-VII (Pg. No-58)** 10. 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	NO CHANGE
7	As this is an ultrasonic energy system only, there is no RF energy.	**Section-VII (Pg. No-58)** 15. System should be equipped with advanced RF energy technology that provides temperature controlled energy delivery.	NO CHANGE
8	As this is an ultrasonic energy system only, there is no RF energy. Besides, there are no RF energy instruments requested in this tender.	**Section-VII (Pg. No-58)** 16. System should have Advanced RF Energy hand instruments that provide tissue / vessel seal strength to withstand bursting pressure of 3 times the systolic pressure.	NO CHANGE
9	1 each for combination of Ultrasonic and Advanced Bipolar	**Section-VII(Pg. No-58)** System should comprise of the following **Hardware:** ➢ Generator – 1 No. ➢ Footswitch - 1 No.	NO CHANGE

10	One transducer for both the Lap and Open Surgery with no Locking Mechanism. Another Same Transducer can be provided for Back Up Support or Separate Transducer For Getting Separate Ultrasonic Energy System should comprise of the following **Accessories:** ➢ Transducer with cable for open surgery – 5 Nos. ➢ Transducer with cable for laparoscopic surgery– 5 Nos. ➢ Hand Probe for ultrasonic open surgery– 25 Nos. ➢ Hand Probe for vessel sealer open surgery– 25 Nos. ➢ Hand Probe for vessel sealer laparoscopic surgery- 25 Nos. ☐ Generator Cart – 1 No. ➢ Adaptors for ultrasonic device – 2 Nos. System should comprise of the following **Accessories:** ➢ Transducer with cable for open surgery – 5 Nos. ➢ Transducer with cable for laparoscopic surgery– 5 Nos. ➢ Hand Probe for open surgery– 25 Nos. ➢ Hand Probe for laparoscopic surgery- 25 Nos. ➢ Generator Cart – 1 No. ➢ No Adaptors (As this is an Ultrasonic energy system)	**Section-VII(Pg. No-58)** System should comprise of the following **Accessories:** ➢ Transducer with cable for open surgery – 5 Nos. ➢ Transducer with cable for laparoscopic surgery– 5 Nos. ➢ Hand Probe for open surgery– 25 Nos. ➢ Hand Probe for laparoscopic surgery- 25 Nos. ➢ Generator Cart – 1 No. ➢ Adaptors for ultrasonic device – 5 Nos.	**Amended** System should comprise of the following **Accessories:** ➢ Transducer with cable for open/ laparoscopic surgery – 5 Nos. each ➢ Ultrasonic Hand Probe for open surgery– 25 Nos. ➢ Ultrasonic Hand Probe for laparoscopic surgery- 25 Nos. ➢ Generator Cart – 1 No. ➢ Adaptors for ultrasonic device – 5 Nos. (Optional) ➢ Laproscopic probe having articulating Vessel sealer with divider -25 Nos. ➢ Open Vessel sealing probe with Divider-25 Nos.
3. VESSEL SEALING SYSTEM			
1	Instruments should have option of hand /foot control with sealing/ dissection in both laparoscopic and open handsets.	**Section-VII (Pg. No-59))** 9. Instruments should have option of hand and foot control with sealing & dissection in both 10mm & 5mm laparoscopic and open handsets.	**Amended** Instruments should have option of hand /foot control with sealing & dissection in laparoscopic 5 mm and open handsets.
2	All instruments should have facility for both 5mm / 10 mm and should with/ without blade for cutting as advantage.	**Section-VII (Pg. No-59))** 16. All laparoscopic instruments should have facility for both 5mm and 10mm and should have a blade for instant cutting.	**Amended** All laparoscopic instruments should have facility for 5 mm and should have a blade for instant cutting.
3	The instrument should be supplied along with following accessories: ➢ 5mm Reusable/Disposable hand/foot activating sealer/ divider hand instrument with / without blade for LAP surgery – 1 nos. reusable/50 nos. disposables. ➢ Disposable/Reusable Hand Instrument (Sealer/Divider) for any open surgery jaw length 3-5 cm- 1 nos. reusable/50 nos. disposables. ➢ Disposable/Reusable Hand Instrument (Sealer/Divider) for any open surgery jaw length 5-8 cm- 1 nos. reusable/50 nos. disposables.	**Section-VII (Pg. No-59))** 17. The instrument should be supplied along with following accessories: ➢ Universal active adaptor for LAP and underwater cutting surgery ➢ 5mm hand/foot activating sealer with divider hand instrument for LAP surgery – 15 nos. disposables ➢ Disposable Hand instrument (sealer/divider) for any open surgery having Jaw length of 3cm – 15 nos. ➢ Disposable Hand instrument (sealer/divider) for any open surgery having Jaw length of 5cm – 15 nos.	**Amended** The instrument should be supplied along with following accessories: ➢ 5 mm hand/foot activating sealer with divider hand instrument for LAP surgery – 20 nos. disposables ➢ Disposable Hand instrument (sealer & divider) for any open surgery having Jaw length of 3 cm – 15 nos. ➢ Disposable Hand instrument (sealer & divider) for any open surgery having Jaw

	The instrument should be supplied along with following accessories: ➢ Disposable Hand instrument with sealer and divider for any open surgery having Jaw length of 3cm – 15 nos. ➢ Disposable Hand instrument with sealer and divider for any open surgery having Jaw length of 5cm – 15 nos.		length of 5 cm – 15 nos.
4. CAVITRON ULTRASONIC SURGICAL ASPIRATOR			
1	This is a BRAND NAME & it should be omitted. "ULTRASONIC SURGICAL ASPIRATOR" is the correct one.	**CAVITRON**	**Amended** The item shall be read as "Ultrasonic Surgical Aspirator".
2	The system should be compact provided with built – in integrated suction facility with Vacuum Pressure of 20-90 Kpa or 65-70 Kpa of Suction pressure in continuous low noise and digital display.	**Section-VII (Pg. No-60)** 3. The system should be compact provided with built-in integrated suction facility with Vacuum Pressure of -20 to- 90 Kpa in continuous low noise and digital display	**Amended** The system should be compact provided with built–in integrated suction facility with Vacuum Pressure of -20 to -90 Kpa or 65-70 Kpa of Suction pressure in continuous low noise and digital display. (If Required)
3	The hand piece must be compact and based on Magneto-restrictive OR Piezoelectric technology with 23 KHZ to 35 KHZ frequency and from 1.14mm to 1.98mm for 36 KHZ/ 23KHZ frequency with DTR technology and 100-120W of energy. The hand piece must be compact and based on Magneto – restrictive technology or Piezoelectric technology with 23 KHZ–25 KHZ, 34 KHZ-35 KHZ & tips with Inner Diameter 1.37 mm to 2.26 mm. As tender requirement is already there for both hand pieces including 35 KHZ, hence 36 KHZ hand piece is not appropriate.	**Section-VII (Pg. No-60)** 5. The hand piece must be compact and based on Magneto-restrictive technology with 23 KHZ, 35KHZ & from 1.14 mm to 1.98mm for 36KHZ frequency and 120W of energy.	**Amended** The hand piece must be compact and based on Magneto – restrictive technology or Piezoelectric technology with frequency 23 KHz –25 KHz, 34 KHz - 35 KHz and tips with Inner Diameter 1.14 mm to 2.26 mm and 100-120W of energy.
4	The system must have a feature of "Tissue Select / DTR Technology" to differentiate tissue barriers with a tactile feedback in the hand piece. This can be omitted as all Ultrasonic Surgical Aspirator have this inbuilt feature, but it is not always displayed.	**Section-VII(Pg. No-60)** 6. The system must have a feature of "Tissue Select" to differentiate tissue barriers with a tactile feedback in the hand piece.	**Amended** The availability of feature of "Tissue Select" to differentiate tissue barriers with a tactile feedback in the hand piece is not mandatory.
5	The system should have tissue release function (automatic shutting off of suction for 2 to 5 seconds after deactivation of the vibration footswitch to prevent against delicate tissue trauma.	**Section-VII (Pg.No-60)** 7. The system should have Tissue release function (automatic shutting off of suction for 2 seconds after deactivation of the vibration footswitch to prevent against delicate tissue trauma.	**Amended** The system should have Tissue release function (automatic shutting off of suction for 2 to 5 seconds after deactivation of the vibration footswitch to prevent against delicate tissue trauma.
6	The hand piece tips should be form 1.57 mm dia up to 2.64 mm dia for 23 KHZ & from 1.14mm to 1.98mm for 36KHZ / 23KHZ frequency with DTR technology. The tips should be autoclave able and re-usable	**Section-VII (Pg.No-60)** 8. The hand piece tips should be form 1.57mm dia up to 2.64 mm dia for 23 KHZ & from 1.14 mm to 1.98mm for 36KHZ. The tips should be autoclave able and re-useable.	**Amended** The hand piece tips should be within range of 1.57 mm dia to 2.64 mm dia for 23 KHz –25 KHz & within range of 1.14 mm to 1.98 mm for 34 KHz -35 KHz.

	The hand piece tips should be form 1.57mm dia up to 2.64mm dia for 23 KHZ & from 1.35 mm to 1.40mm for 34KHZ-35 KHZ. The tips should be autoclave able and re-useable or 10 Nos. of Titanium Tips should be provided for required sizes.		The tips should be autoclaveable and re-useable or 10 Nos. of Titanium Tips should be provided for required sizes.
7	The hand piece should have helical bone cutting / sculpting tip with 180 degree cutting or Single Side serrations/ abrasive surface to enable greater control and precise work near critical structures	**Section-VII (Pg.No-60)** 9. The hand piece should have helical bone cutting / sculpting tip with 180 degree cutting / abrasive surface to enable greater control and precise work near critical structures.	**Amended** The hand piece should have helical bone cutting / sculpting tip with 180 degree cutting or Single Side serrations/ abrasive surface to enable greater control and precise work near critical structures.
8	For extended hours during surgeries (i.e., for more than 4-8 hours) the hand piece should have a built –in water cooling system to avoid over heating of the hand piece, if required. For extended hours during surgeries (i.e., for more than 4 – 8 hours) the hand piece should have a built-in water cooling system (Magneto-restrictive technology) to avoid over heating of the hand piece.	**Section-VII (Pg.No-60)** 10. For extended hours during surgeries (i.e., for more than 4 – 8 hours) the hand piece should have a built- in water cooling system to avoid over heating of the hand piece.	**Amended** For extended hours during surgeries (i.e., for more than 4-8 hours) the hand piece should have a built – in water cooling system to avoid over heating of the hand piece, if required.
9	The hand piece should have a laparoscopic tip about 20-30 cm in length.	**Section-VII (Pg. No-60)** 11. The hand piece should have a laparoscopic tip about 30 cm in length and with reusable extended life and autoclavable.	NO CHANGE
10	The control panel should have adjustable viewing angle / fixed panel viewing for better visibility in the Operation Theater.	**Section-VII (Pg. No-60)** 12. The control panel should have adjustable viewing angel for better visibility in the Operation Theater.	**Amended** The control panel should have adjustable viewing angle / fixed panel viewing for better visibility in the Operation theater.
11	Irrigation rate of the system should be in the range of 1.5 cc/min to 25 cc/min Irrigation rate of the system should be in the range of 3ml – 40ml.	**Section-VII (Pg. No-60)** 14. Irrigation rate of the system should be in the range of 1.5 cc/min to 50 cc/min.	**Amended** Irrigation rate of the system should be up to 25 ml/min or more.
12	**Accessories:** a) Macro hand piece, short angled with connecting cable frequency 23 KHz to 36 KHz of adequate size and weight (one each of both frequencies) **OR** Curved Hand piece with DTR technology-Qty. 1 No. And Tips (Interchangeable) - Qty. 2 Nos. b) Micro-pen hand piece, long angled with connecting cable frequency 23KHz to 36 KHz of adequate size and weight (one each of both frequencies) **OR** Short Straight Hand piece with DTR technology- Qty. 1 No. and Long Curved Tips (Interchangeable) - Qty. 2 Nos. c) Micro-pen hand piece of 36 KHz of adequate size and weight for bony lesion removal **OR** 10 Nos. Of Tips for bony lesion removal should be provided with the system.	**Section-VII (Pg. No-61)** **Accessories:** a) Macro hand piece, short angled with connecting cable frequency 23 KHz to 36 KHz of adequate size and weight (one each of both frequencies) b) Micro-pen hand piece, long angled with connecting cable frequency 23 KHz to 36 KHz of adequate size and weight (one each of both frequencies) c) Micro-pen hand piece of 36 KHz of adequate size and weight for bony lesion removal d) All essential accessories and minimum 20 pcs of consumable accessories should be provided free of cost with the machine.	**Amended** **Accessories:** a) Macro hand piece, short angled with connecting cable frequency 23 KHz to 35 KHz of adequate size and weight (one each of both frequencies) **OR** Curved Hand piece with DTR technology- 2 Nos. And Tips (Interchangeable) - 2 Nos. b) Micro-pen hand piece, long angled with connecting cable frequency 23 KHz to 35 KHz of adequate size and weight (one each of both frequencies) **OR** Short Straight Hand piece with DTR technology- 2 Nos. and Long Curved Tips (Interchangeable) - 2

	a) Macro hand piece or universal hand piece with appropriate Tips, short angled with connecting cable frequency 23-25 KHz & 34-35 KHz of adequate size and weight (one each of both frequencies) Both Hand pieces should be provided with straight round tips of length 11.7 cm & 12.2 cm reusable or (5 each of titanium tip) b) Micro-pen hand piece or universal hand piece with appropriate Tips, long angled with connecting cable frequency 23-25 KHz & 34-35 KHz of adequate size and weight (one each of both frequencies) Both hand pieces should be provided with straight round tips of length 20 cm & 12.2 cm reusable or (5 each of titanium tip) c) Micro-pen hand piece or universal hand piece with appropriate tips of 34-35 KHz of adequate size and weight for bony lesion removal reusable or 5 tips of Titanium.		Nos. c) Micro-pen hand piece of 34 KHz- 35 KHz of adequate size and weight for bony lesion removal **OR** 20 Nos. Of Tips for bony lesion removal should be provided with the system.
5. 3-D LAPAROSCOPE SYSTEM WITH ICG			
1	1. 3G-SDI Out Put for transmitting the 4K-3D signal. 2. 3G-SDI and HD-SDI output for simultaneous signal transmission to standard 2D monitors 4. Integrated USB interface for saving captured still images in 2D Full HD or Video.	**Section-VII (Pg. No-61)** **3D camera control unit (CCU) :** 1. 12G SDI/DP PORT output for transmitting the 4K-3D signal. 2. 12G-SDI output for simultaneous signal transmission to standard 2D monitors. 4. Integrated USB interface for saving captured video or still images in 2D Full HD	**Amended** 1. 4×3G or 12G SDI/DP PORT output for transmitting the 4K-3D signal. 2. 4×3G or 12G SDI output for simultaneous signal transmission to standard 2D monitors. 4. Integrated USB interface for saving captured video & still images in 2D Full HD & Video
2	USB port – For capturing direct 2D Full HD still or Video INBUILT USB port – For Capturing direct 2D Full HD still & videos OR Separate FULL HD RECORDER for capturing FULL HD STILL & VIDEO of same MANUFACTURER ONLY. In case quoting external recorder then it should be of the same manufacturer name only.	**Section-VII (Pg. No-62)** **Camera System:** 1. USB Port – For Capturing direct 2D Full HD still & Videos.	**Amended** Inbuilt USB Port – For Capturing direct 2D Full HD still & Videos OR Separate FULL HD RECORDER of same Manufacturer for capturing Full HD still & Videos.
3	Video output – Max 4K signal at 3G- SDI PORT	**Section-VII (Pg. No-62)** **Camera System:** 3. Video output – Max 4K signal at 12G SDI/ DP PORT	**Amended** 3. Video output – Max 4K signal at 4×3G or 12G SDI/ DP PORT.
4	3. Readily Upscale able to 4K System 10. Various signal input: 3G SDI's for 4K-3D signal, HD-SDI for 2D signal in HD.	**Section-VII (Pg. No-62)** **4K-3D Monitor:** 3. Readily upgraded to 4K SYSTEM 10. Various signal inputs: 12G SDI'S for 4K-3D signal, HD-SDI for 2D signal in HD.	**Amended** 3. No Change 10. Various signal inputs: 4×3G SDI'S/ 12G SDI'S for 4K-3D signal, HD-SDI for 2D signal in HD.

5	Video Output: VBS composite and Y/C; 2D digital signal output 3G-SDI (SMPTE424M),HD-SDI(SMPTE292M), DVI (WUXGA,1080p or SXGA, 3D digital signal output 3G-SDI Level B (SMPTE424M), DVI-D(WUXGA) or 1080 p	**Section –VII (Pg. No.63)** **Technical Specifications: ICG Head Only** 14. Video output: 2 x DP output, 1 x 12G-SDI output, 3 x camera input for communication with compatible camera modules, LAN connection, 4 x USB connection (2 x front, 2 x back).	No Change
6	Fully automatic, electronically controlled gas fill with all TOUCH PANEL CONTROLS.	**HIGH FLOW INSUFFLATOR - 1 no. Section –VII (Pg. No.63)** 1. Fully automatic, electronically controlled gas fill.	No Change
7	Flow rate of Minimum 35-45 litres per minute.	**Section –VII (Pg. No.63)** **HIGH FLOW INSUFFLATOR - 1 no.** 2. Flow rate of Minimum 30- 40 litres per minute.	**Amended** 2. Flow rate of 40-55 litres or more per minute.
8	1. Pumps for irrigation and suction with all TOUCH PANEL CONTROLS. PARAMETERS:- Pressure Flow: LAP 100/300/500 mm Hg. Flow: 0-1300ml/min, Suction Pressure regulated: LAP: 0.1-(-) 0.8 bar(-80kPa), Power supply: 100-240VAC,50/60HZ	**Section – VII (Pg. No.64)** **SUCTION-IRRIGATION UNIT** 1. Pump for irrigation and suction 2. Maximum irrigation pressure 400 mm Hg 3. Suction pressure 0.75 bar 7. Irrigation suction flow rate should not be less than 2-5 L/min.	**Amended** 1. Pumps for irrigation and suction with all touch panel controls. 2. Pressure Flow: LAP: UPTO 500 mm Hg or ABOVE 3. Suction Pressure regulated: LAP: 0.1 to 0.8 bar. 7. Flow: 0-1300ml/min
9	All Items Must be of the same manufacturer	**Section – VII (Pg. No.64)** **HAND INSTRUMENTS & OTHER ACCESSORIES**	**Amended** All Hand Instruments & Other Accessories must be of the same manufacturer
10	1. Reusable Veress Pneumoperitoneum Needle-Spring Loaded blunt stylet luer lock length 13 m/15 m – 5 each.	**Section – VII (Pg. No.64)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 1. Reusable Veress Pneumoperitoneum Needle- Spring loaded blunt stylet luer lock length 10/15 cm/18 cm - 5 each	**Amended** 1. Reusable Veress Pneumoperitoneum Needle Spring Loaded blunt stylet luer lock length 13 cm/15 cm – 5 each.
11	3. Reusable Trocar:-11 mm & 13.5 mm Multifunctional valve, insufflation stopcock and threaded sleeves, Pyramidal tip, length (10.5 cm) Flapper valve – 5 each	**Section – VII (Pg. No.64)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 3. Reusable Trocar:- 10/11 mm & 12 mm- Multifunctional valve, insufflation stopcock and threaded sleeves, pyramidal tip, length (10.5 cm) Flapper valve - 5 each	**Amended** 3. Reusable Trocar :-11 mm & 13.5 mm Multifunctional valve, insufflation stopcock and threaded sleeves, Pyramidal tip, length (10.5 cm) Flapper valve – 5 each
12	Grasping forceps STRAIGHT toothed 2X4 teeth-Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36 mm, dismantling facility, ONLY-5.	**Section – VII (Pg. No.64)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 5. Grasping forceps curved - toothed 2x4 teeth- Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility, size 10mm -5 each (5 & 10 mm)	**Amended** 5. Grasping forceps STRAIGHT toothed 2X4 teeth-Double action jaws, rotating with connector pin for unipolar coagulation, size 5 mm, length 33-36 mm, dismantling facility- 5 Nos.
13	Grasping forceps straight- LONG toothed 2X3 teeth-Single action jaws, rotating with connector pin for unipolar coagulation, size 5 mm, length 33-36 cm, dismantling facility, ONLY-5 Nos.	**Section – VII (Pg. No.64)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 6. Grasping forceps straight- toothed 2x3 teeth- Double action jaws, rotating with connector pin for unipolar coagulation, size 5 mm, length 33-36 cm, dismantling facility, size 10 mm -5 each(5 &10 mm)	**Amended** 6. Grasping forceps straight- LONG toothed 2X3 teeth-Single action jaws, rotating with connector pin for unipolar coagulation, size 5 mm, length 33-36 cm, dismantling facility -5 Nos.
14	Grasping forceps BOWEL CURVED- Double action jaws, rotating with connector pin for unipolar coagulation, size 5 mm, length 33-36 cm, dismantling	**Section – VII (Pg. No.64)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 10. Grasping forceps Mixter - Double action jaws, rotating with connector pin for unipolar coagulation, size 5 mm, length 33-36	**Amended** 10. Grasping forceps BOWEL CURVED- Double action jaws, rotating with connector pin for unipolar coagulation, size 5 mm,

	facility size 5 mm only-5 Nos.	cm, dismantling facility – 5 nos.	length 33-36 cm, dismantling facility size 5 mm only-5 Nos.
15	Grasping forceps-Babcock-Double action jaws, rotating with connector pin for unipolar coagulation, size 5 mm, length 33-36cm, dismantling facility, size 5mm ONLY- 5 Nos.	**Section – VII (Pg. No.64)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 12.Grasping forceps-Babcock-Double action jaws, rotating with connector pin for unipolar coagulation, size 5 mm, length 33-36 cm, dismantling facility, size 10 mm – 5 each (5 & 10 mm)	**Amended** 12. Grasping forceps-Babcock-Double action jaws, rotating with connector pin for unipolar coagulation, size 5 mm, length 33-36cm, dismantling facility, size 5 mm - 5 Nos.
16	Rotating spoon shaped Scissors-Double action Sharp jaws, rotating with connector pin for unipolar coagulation size 5 mm, length 33-36 cm, dismantling facility disposable only – 5 Packs (1 Pack-10 Pieces)	**Section – VII (Pg. No.65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 15. Rotating Metzenbaum Scissors-Double action jaws, rotating with connector pin for unipolar coagulation, size 5 mm, length 33-36 cm, dismantling facility – 5 nos.	**Amended** 15. Rotating spoon shaped Scissors- Double action Sharp jaws, rotating with connector pin for unipolar coagulation size 5 mm, length 33-36 cm, dismantling facility disposable only – 50 Nos.
17	Rotational Bipolar coagulating with fine Atraumatic Serration-size 5 mm, length 33-36 cm fenestrated-5 nos.	**Section – VII (Pg. No.65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 16. Bipolar coagulating forceps-Size 5mm, length 33-36 cm fenestrated- 5 nos.	**Amended** 16. Rotational Bipolar coagulating with fine Atraumatic Serration- size 5 mm, length 33-36 cm fenestrated-5 nos.
18	ROTATIONAL Bipolar coagulating MARRYLAND DISECTING & GRASPING forceps-Size 5 mm, length 36 cm, 3 mm width of jaws - 5 nos.	**Section – VII (Pg. No.65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 17.Bipolar coagulating forceps- Size 5 mm, length 36 cm, 3 mm width of jaws - 5 nos.	**Amended** 17. ROTATIONAL Bipolar coagulating DISECTING & GRASPING forceps-Size 5 mm, length 36 cm, 3 mm width of jaws - 5 nos.
19	High Frequency MONOPOLAR Cord for 5 mm hand instruments – 5 nos.	**Section – VII (Pg. No. 65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 18. High Frequency Cord- For 5 mm & 10 mm hand instruments with Monopolar Electrodes, spatula tip, needle electrode- 5 each	**Amended** 18. High Frequency MONOPOLAR Cord for 5 mm hand instruments – 10 nos.
20	High Frequency BIPOLAR Cord – 5 each	**Section – VII (Pg. No. 65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 19. High Frequency Cord- For 5 mm & 10 mm hand instruments with Monopolar Electrodes, hook tip, knife electrode - 5 each	**Amended** 19. High Frequency BIPOLAR Cord-10 nos.
21	Knot pushers – Eye type, length 33-36 cm – 2 nos. each for intra and extra corpal knotting.	**Section – VII (Pg. No. 65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 20. Knot pushers-Eye type, length 33-36 cm - 5 nos. each for intra and extra corpal knotting	**Amended** 20. Knot pushers – Eye type, length 33-36 cm – 2 nos. each for intra and extra corpal knotting.
22	Reusable Trocar: - 7 mm – Multifunctional valve, insufflation stopcock and threaded sleeves, pyramidal tip, length (10.5 cm) Flapper valve –2 nos.	**Section – VII (Pg. No.65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 24. Hassan cone-Adaptable to 10mm trocar – 2 nos.	**Amended** 24. Reusable Trocar: - 7 mm – Multifunctional valve, insufflation stopcock and threaded sleeves, pyramidal tip, length (10.5 cm) Flapper valve –2 nos.
23	CAP REDUCER – 11/5 MM – 5 Nos.	**Section – VII (Pg. No.65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 25. Blunt Obturator- For 11 mm port-From 10/11 mm to 5mm & 5 to 3 mm – 5 nos.	**Amended** CAP REDUCER – 11/5 MM – 5 Nos.
24	REDUCTION SLEEVE – 11/5 MM – 5 Nos.	**Section – VII (Pg. No.65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 26. Reducer-Size 5mm, length 33-36 cm with pin for cautery - 5nos	**Amended** REDUCTION SLEEVE – 11/5 MM – 5 Nos.
25	NOT REQUIRED	**Section – VII (Pg. No.65)**	**Amended**

		HAND INSTRUMENTS & OTHER ACCESSORIES 31. Metzenbaum scissors-High performance with bipolar cautery – 5 nos.	31. This point is deleted
26	NOT REQUIRED	**Section – VII (Pg. No.65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 32. Large operating scissors-With double action jaws (slightly curved) Rotatable 10 mm diameter instruments with a working length of 33-36 cm, dismantling facility - 5 nos.	**Amended** 32. This point is deleted
27	Myoma screw – 5mm, 33-36 cms – 2 nos.	**Section – VII (Pg. No.65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 35. Myoma screw-5mm, 33-36 cms length, 10 mm - 2 nos.	**Amended** 35. Myoma screw – 5mm, 33-36 cms – 2 nos.
28	Uterine Manipulator - LAVH, mobilization of uterus, identification of vaginal fornices and sealing of vagina during hysterectomy. – 1 no.	**Section – VII (Pg. No.65)** **HAND INSTRUMENTS & OTHER ACCESSORIES** 36. Uterine Manipulator- LAVH, mobilization of uterus, identification of vaginal fornices and sealing of vagina during hysterectomy. - 5nos.	**Amended** 36. Uterine Manipulator - LAVH, mobilization of uterus, identification of vaginal fornices and sealing of vagina during hysterectomy. – 1 no.
29	2. Morcellator tube with OBLIQUE SLEEVES. 6. NOT REQUIRED 7. NOT REQUIRED 8. NOT REQUIRED 9. NOT REQUIRED	**Section – VII (Pg. No.65)** **Electronic Morcellator-With Cutting Sleeve And Protective Sleeve Along With Spare Knife (Fully Autoclavable): 1 No.** 2. Morcellator tube serrated edge 6. Laparoscopic Bag 7. Insulated handle with HF connection rotating with ratchet 8. High frequency monopolar cables- For above auxiliary instruments. 9.High frequency bipolar cables- For above auxiliary instruments	**Amended** **Electronic Morcellator-With Cutting Sleeve And Protective Sleeve Along With Spare Knife (Fully Autoclavable): 1 No.** 2. Morcellator tube with OBLIQUE SLEEVES. REUSABLE 15 MM & 12 MM SPARE KNIFE - 2 Nos. EACH along With CLEANING KITS & COMPRESSED SILICON SPRAY :- 1 SET 6 to 9- deleted (Electronic Morcellator-With Cutting Sleeve And Protective Sleeve Along With Spare Knife should be either from same manufacturer or from reputed manufacturer having USFDA/European CE (notified body) certified).
30	VIDEO TROLLEY GOOD QUALITY INDIAN MAKE DESKTOP COMPUTER for EDITING, i5 processor, 6-8GB RAM, 2TB HDD, ORIGINAL WINDOWS OS, with TROLLEY & UPS. 5 KVA ONLINE UPS with ISOLATION TRANSFORMER & with minimum 30 MINUTES BACK UP.	**Additional point suggested to specification**	**Amended** **Additional Requirement** 1. Video Trolley Good Quality Indian Make 2. Desktop computer for editing, i7 processor, 8 GB RAM, 2 TB HDD, original windows OS 3. 5 KVA online UPS with minimum 30 minutes back Up 4. CO2 Cylinder (9 Kg)-2 Nos. 5. FORMALIN CHAMBER 26" - 2 Nos. 6. CIDEX TRAY - 2 Nos. 7. XENON 300 WATT LAMP ONLY - 3 Nos.
10. Video Cystoscope System			

1		**Section – VII (Pg. No.73)** Should be CE or USFDA approved.	**Amended** Should be CE and USFDA approved.
2	Should have built in HD – SDI & DVI input & output and 16:9 & 16:10 output for an HDTV Monitor. Should be 3 chip HD CCD/CMOS camera system with SDI/DVI output	**Section – VII (Pg. No.74)** **(I) Video Processor and Light Source** 1. Should have built in HD – SDI & DVI output & 16:9 &16:10 output for an HDTV Monitor.	**Amended** 1. Should have built in HD (3840x2160 pixels) – SDI & DVI output & 16:9 & 16:10 output for an HDTV Monitor (3840x2160 pixels).
3	It should be latest, hi definition technology, Latest Model Compact (separate or Integrated) and economically designed, Compatible with NBI/BLI/OE/S Technologies scopes. Delete NBI/BLI/OE- Company Specific	**Section – VII (Pg. No.74)** **(I) Video Processor and Light Source** 2. It should be latest, hi definition technology, Latest Model Compact (separate or Integrated) and economically designed, Compatible with NBI/BLI/OE scopes.	**Amended** 2. It should be latest, hi definition technology, Latest Model Compact (separate or Integrated) and economically designed, Compatible with NBI/BLI/OE/S Technologies scopes.
4	Light Source should be equipped with Long Life LED. At least 300W LED light source, no need of emergency light for back up	**Section – VII (Pg. No.74)** **(I) Video Processor and Light Source** 3. Light Source should be equipped with 300W Xenon Lamp or Long Life LED with emergency light for back up.	**Amended** Light Source should be equipped with 300W Xenon Lamp or Long Life LED (300W).
5	26 inch or more full HD LCD monitor of Medical grade having aspect ratio 16:9 & 16:10. At least 26 inch HD LED monitor for 16:9 aspect ratio	**Section – VII (Pg. No.74)** **(II) High definition LCD Monitor** 21 inch or more full HD LCD monitor of Medical grade having aspect ratio 16:9 & 16:10.	No Change
6	Computer System along with laser printer & video processor camera unit must have inbuilt USB port for capturing direct 2D full HD still & Videos OR separate full HD recorder for capturing Full HD Still & Videos of same manufacturer only. Min 500GB storage medical grade USFDA & CE approved recording device.	**Section – VII (Pg. No.75)** **(III) Recording System** Computer System along with laser printer & HD software -1 set (Software should be provided along with the system.)	**Amended** Computer System along with laser printer & video processor camera unit must have inbuilt USB port for capturing direct 2D full HD still & Videos OR separate full HD recorder for capturing Full HD Still & Videos with minimum 500 GB storage capacity of same manufacturer only.
12.RIGID ENDOSCOPE WITH FESS INSTRUMENTS WITH LIGHT SOURCE AND FIBER OPTIC CABLE			
1	a. Product should be USFDA and European CE.	**Section – VII (Pg. No.77)** a. Product should be USFDA, CE, UL or BIS approved.	**Amended** Product should be USFDA and European CE.
2	Request to split all items in 3 part as separate item, Part-I -: Fess Instruments, Telescopes & instruments Part-II -: Microdebrider Part-III-: Endovision system consist of (full high definition HD three chip camera system with high resolution HD medical grade monitor, LED light source, Fiber optic cable, Video trolley) All items including the camera, light source, microdebrider and instruments from the same manufacturer.	**Section-VII (Pg. No-77)** g. The core FESS equipments like Telescopes, Endovision Three chip HD camera, light source, Microdebrider Unit, hand instruments, fiber optic cable, Video monitor & should be from single manufacturer for system compatibility.	**Amended** The core FESS equipments like Telescopes, Endovision Three chip HD camera, light source, hand instruments, fiber optic cable, Video monitor should be from single manufacturer for system compatibility. Microdebrider Unit should be either from same manufacturer or from reputed manufacturer having USFDA or European CE approval.
3	The appropriate specifications are: 1. Should be able to connect to	**Section-VII(Pg. No-78))** 27. MICRODEBRIDER, consisting of main control unit with speed up to not less than	No Change

	multiple hand pieces at a time like Debrider hand pieces(Up to 5000 RPM in Oscillating mode & 12000 RPM), Stapedectomy Drill (up to 12000 RPM) 2. Console should recognize the various hand pieces and automatically adjust the setting accordingly 3. Must have inbuilt pumps each for irrigation (5 Cc / Min to 100 Cc / Min) and cooling 4. Must have multifunction ergonomically designed foot control for easy identification 5. Should be able to control Speed/Mode, Forward/Reverse toggle, Active hand piece change from the Foot control itself 6. Must have inbuilt scope lens cleaning or irrigation clip system for intra operative cleaning. 7. Should have the option to work with foot pedal or console. 8. Must have option to connect Oscillating, Reciprocating and Sagittal Saws 9. The various parameters should be able to adjust either from touch screen panel or from the multifunction foot switch. **Microdebrider Hand Piece: 1 No.** 1. Micro-debridder should be capable of Up to 5000 RPM in Oscillating mode & 12000 RPM in Forward mode 2. Should have direct-drive motor with straight through suction 3. Should have Versatile Technology, Ergonomic engineering for balance and performance 4. Must be compatible with Various angled blades and burs. MICRODEBRIDER, consisting of main control unit with speed up to not less than 12000 rpm for Shaver Blades & 35000 rpm for SINUS Burrs, in-built irrigation pump, forward & reverse cutting, Shaver hand piece with micro motor with integrated suction channel, mains cord, two-pedal footswitch, silicon tubing for irrigation. Hand piece, Suction shaver blades (straight cutting edge, rectangular/oblique cutting window, concave cutting edge, serrated cutting edge – 2 nos. each), clip set and tubing set.	40000 rpm, in-built irrigation pump, forward & reverse cutting, Shaver hand piece with micro motor (speed not less than 40000 rpm), with integrated suction channel, mains cord, two-pedal footswitch, silicon tubing for irrigation. Hand piece, Suction shaver blades (straight cutting edge, rectangular/oblique cutting window, concave cutting edge, serrated cutting edge – 2 nos. each), clip set and tubing set.	
4	Camera control unit with 3 chip HD camera head having HD CCD/CMOS chip of same aspect ratio of 16:9	**Section-VII(Pg. No-78))** **Full High Definition Three Chip Camera System:** 28. Camera control unit with 3 chip HD camera head having HD CCD chip of same aspect ratio of 16:9	**Amended** Camera control unit with 3 chip HD camera head having HD CCD/CMOS chip of same aspect ratio of 16:9.

5	Should have integrated optical zoom lens 14-30mm, to increase and decrease the size of image which should remain in focusing zone, without readjusting the focus (with 10% +/-).	**Section-VII(Pg. No-79))** **Full High Definition Three Chip Camera System:** 35. Should have integrated optical zoom lens 14-30 mm, to increase and decrease the size of image which should remain in focusing zone, without readjusting the focus.	**Amended** Should have integrated optical zoom lens 14-30mm, to increase and decrease the size of image which should remain in focusing zone, without readjusting the focus (with 10% +/-).
6	High Definition Medical grade Surgical Monitor (LED), resolution 1920 X 1200 with DVI, RGB input option for wall mounting and desktop in same unit. Should have same aspect ratio of 16:9 or 16:10 of the endoscopic HD camera system.	**Section-VII(Pg. No-79))** **High Resolution HD Video medical grade Monitor:** 41. 24" or 26"High Definition Medical grade Monitor, resolution 1920 X 1200 with DVI, RGB, input, option for wall mounting and desktop in same unit. Should have same aspect ratio of 16:9 or 16:10 of the endoscopic HD camera system.	No Change
7	LED light source of at least 300 Watts or more.	**Section-VII(Pg. No-79))** **Xenon Light Source:** 46. Xenon light source of 175 Watts or more.	**Amended** Xenon light source of 300 Watts or more and additionally 2 Nos. of 300W Xenon lamp shall be provided.
8	Potential equalization connection to be provided at least 8 points. Local Indian make of good quality.	**Section-VII(Pg. No-79)** **Video Trolley:** 57. Potential equalization connection to be provided at least 8 points. Preferably from OEM.	**Amended** Potential equalization connection to be provided at least 8 points. Local Indian make of good quality.
13. Anaesthesia Workstation System With High End OR Monitor			
1	The system should be USFDA or European CE approved by notified body.	**Section-VII (Pg. No-80)** **Product Quality Standard:** 1. The system should be USFDA & Notified CE approved.	No Change
2	Electronic/Mechanical hypoxic guard to ensure 25% oxygenation across all O2-N2O gas mixes	**Section-VII (Pg. No-80)** **Gas Management:** 8. Electronic hypoxic guard to ensure 25% oxygenation across all O2 -N2O gas mixes.	No Change
3	Accurate electronic flow meter with both digital display of numerics and virtual display of the flow meter on the workstation screen with electronic mixing	**Section-VII(Pg. No-80)** **Gas Management:** 10. Accurate electronic flow meter with both digital display of numerics and virtual display of the flow meter on the workstation screen with electronic/mechanical mixing	**Amended** Accurate electronic flow meter with both digital display of numerics and virtual display of the flow meter on the workstation screen with electronic mixing.
4	It should be a inbuilt Anesthesia Gas Monitoring module so that company will quote their best model available.	**Section-VII(Pg. No-80)** **Gas Management:** 15. Should have an additional receptacle for accepting/integrating Anaesthesia Gas monitoring module	**Amended** Should have an additional receptacle for accepting Anaesthesia Gas monitoring module or inbuilt Anaesthesia Gas monitoring module.
5	Should have a decision support tool for fresh gas flow for minimal flow anaesthesia minimizing the chance of hypoxia Request to amend minimizing gas volume deficiency during low flow	**Section-VII (Pg. No-80)** **Gas Management:** 16. Should have a decision support tool for fresh gas flow for low flow or minimal flow anaesthesia minimizing the chance of hypoxia	**Amended** Should have inbuilt safety software which will tell the accurate amount to ensure minimal flow.
6	Should have an ability to check usage of Anaesthesia agent at the time to finishing of each case.	**Section-VII(Pg. No-81)** **Gas Management:** 17. Should have an ability to check total usage of gas & agent anytime during the case	**Amended** Should have an ability to check usage of Anaesthesia agent at the time to finishing of each case.

7	Request to add it must be USFDA approved from same OEM	**Section-VII(Pg. No-81)** **Vaporizers:** 19. Vaporizer shall require no tools to mount.	**Amended** Vaporizer shall require no tools to mount and it must be USFDA approved.
8	Vaporizer shall mount to a Selectatec or equivalent manifold	**Section-VII(Pg. No-81)** **Vaporizers:** 20. Vaporizer shall mount to a Selectatec manifold which allows easy exchange between agents.	**Amended** Vaporizer shall mount to a Selectatec or equivalent manifold which allows easy exchange between agents.
9	Supplier must offer total vaporizer manufacturing capability Sevoflurane, Halothane and Isoflurane Supplier must offer total vaporizer manufacturing capability- Enflurane, Sevoflurane, Halothane and Iso flurane.	**Section-VII(Pg. No-81)** **Vaporizers:** 21. Supplier must offer total vaporizer manufacturing capability- Desflurane, Enflurane, Sevoflurane, Halothane and Iso flurane	**Amended** Supplier must offer total vaporizer manufacturing capability- Desflurane, Sevoflurane, Halothane and Isoflurane.
10	Back bar to accept two selectatec or equivalent vaporizers	**Section-VII(Pg. No-81)** **Vaporizers:** 22. Back bar to accept two selectatec vaporizers	**Amended** Back bar to accept two selectatec or equivalent vaporizers.
11	Should be supplied with Isoflurane and Sevoflurane vaporizer of one each and should be pour/Quick fill type.	**Section-VII(Pg. No-81)** **Vaporizers:** 23. Should be supplied with Isoflurane and Sevoflurane vaporizer of one each and should be pour fill type.	**Amended** Should be supplied with Isoflurane and Sevoflurane vaporizer of one each and should be pour/Quick fill type.
12	Request to add integrated heater to prevent condensation	**Section-VII(Pg. No-81)** **Breathing System:** 26. Breathing system shall have integrated volume sensing of a type that does not require daily maintenance.	**Amended** Breathing system shall have integrated volume sensing that does not require daily maintenance or shall have integrated heater to prevent condensation.
13	Request to amend it should be Gas Driven/Turbine Driven/Piston Driven	**Section-VII(Pg. No-81)** **Breathing System:** 29. Should be gas driven/Turbine driven	No Change
14	Request to amend OR equivalent technology to be added	**Section-VII(Pg. No-81)** **Breathing System:** 30. Ventilator bellows shall be integrally mounted to the breathing system.	**Amended** Ventilator bellows shall be integrally mounted to the breathing system or any equivalent technology shall be available.
15	Should have the facility to check leakages in whole system.	**Section-VII(Pg. No-81)** **Breathing System:** 35. Should have the facility to check leakages in whole system & individually also -like breathing system, Vaporizer1, vaporizer2, Patient circuit.	No Change
16	OR Piston Driven may be added	**Section-VII(Pg. No-81)** **Breathing System:** 37. Should be Electronically controlled and Pneumatically driven through advanced Flow control valve or should be electronically controlled and turbine driven	No Change
17	Kindly remove this point from technical specification. Option of using Medical Air or Oxygen as driving gas or electrical driven	**Section-VII(Pg. No-81)** **Ventilation:** 38. Option of using Medical Air or Oxygen as driving gas	**Amended** Option of using Medical Air or Oxygen as driving gas or electrical driven.
18	Request to delete Apnea Backup	**Section-VII(Pg. No-81)** **Ventilation:** 39. Modes of Ventilation: VCV, PCV, Volume Guarantee/Auto flow/PRVC, Pressure support with Apnea Backup, SIMV (Volume & Pressure)	No Change

19	Rate : 3 to 80 bpm	**Section-VII(Pg. No-81)** **Ventilation:** 41. Rate : 4 to 100 bpm	No Change
20	Peep : 1 to 20 cms H2O	**Section-VII(Pg. No-81)** **Ventilation:** 42. Peep : Off, 4 to 30 cms H2O	No Change
21	LCD/TFT screen, minimum 12 inches with touch screen & trim knob for setting	**Section-VII(Pg. No-82)** **Display:** 50. LCD/TFT screen, minimum 15 inches with touch screen & trim knob for setting	No Change
22	51. Waveforms: Pressure vs Time, Flow vs Time & CO2 as standard	**Section-VII(Pg. No-82)** **Display:** 51. Waveforms: Pressure vs Time, Flow vs Time & CO2 when AGM is connected	**Amended** Waveforms: Pressure vs Time, Flow vs Time & CO2 as standard
23	Display all set and Monitored parameters like Volumes, Rate, Timing and Pressure.	**Section-VII(Pg. No-82)** **Display:** 53. Display all set and Monitored parameters like Volumes, Rate, Timing, Pressure, Pressure of Inlet Gases	No Change
24	Should display O2, CO2, detected Agent, Inspired and Expired O2, N2O,CO2, Agent Concentration values & MAC with Anaesthesia Gas Module is connected. Should display O2, CO2, Inspired and Expired O2, N2O,CO2, Agent Concentration values & MAC with Anaesthesia Gas Module is connected.	**Section-VII(Pg. No-82)** **Display:** 55. Should display O2, CO2 , detected Agent waveforms, Inspired and Expired O2, N2O, CO2, Agent Concentration values & MAC with Anaesthesia Gas Module is connected	**Amended** Should display O2 , CO2 , detected Agent, Inspired and Expired O2 , N2O , CO2 , Agent Concentration values & MAC with Anaesthesia Gas Module is connected.
25	Kindly remove this point from technical specification.	**Section-VII(Pg. No-82)** **Display:** 56. Cylinder & Pipeline pressure should be digitally available on screen along with the electronic flow display	No Change
26	Shall work on electric mains fitted with Indian plug/ European plug.	**Section-VII(Pg. No-82)** **Power:** 61. Shall work on electric mains fitted with Indian plug.	No Change
27	The system should be USFDA / Notified CE approved.	**Section-VII(Pg. No-82)** **High End OR Monitor:** 73. The system should be USFDA & Notified CE approved.	No Change
28	17" Color TFT touch screen display mounted on the Anesthesia Workstation	**Section-VII(Pg. No-82)** **High End OR Monitor:** 74. 15" Color TFT touch screen display mounted on the Anaesthesia Workstation	**Amended** 15" or more Color TFT touch screen display mounted on the Anaesthesia Workstation.
29	Minimum 10 wave forms and modular in design.	**Section-VII(Pg. No-82)** **High End OR Monitor:** 76. Minimum 6 wave forms and modular in design.	**Amended** 6 to 10 wave forms and modular in design.
30	Should have option to connect an anaesthesia gas module for measurement of inspired & expired gases and agents with automatic detection of agents and age specific MAC value Request to add inbuilt in anaesthesia workstation Kindly remove this point from technical specification.	**Section-VII(Pg. No-83)** **High End OR Monitor:** 86. Should have an anaesthesia gas module for measurement of inspired & expired gases and agents with automatic detection of agents and age specific MAC value	**Amended** Should have option to connect an anaesthesia gas module (separate or inbuilt) for measurement of inspired & expired gases and agents with automatic detection of agents and age specific MAC value.
31	Kindly remove this point from technical specification.	**Section-VII(Pg. No-83)** **High End OR Monitor:** 92. Measure display- QT/QTc	No Change

32	To be deleted	**Section-VII(Pg. No-83)** **Accessories & Consumables Required:** 101. AGM Water Trap -50 each 102. AGM Sample Line -100 each	**Amended** **Accessories & Consumables Required:** 101. Deleted 102. Deleted
14. FULLY DIGITAL ANESTHESIA WORKSTATION SYSTEM WITH END TIDAL CONTROL AND HIGH END OR MONITOR			
1	The system should be USFDA / Notified CE approved.	**Section-VII(Pg. No-84)** **Product Quality Standard:** 1. The system should be USFDA & Notified CE approved.	No Change
2	Request to add EN60601-1	**Section-VII(Pg. No-84)** **Product Quality Standard:** 2. Manufacturer should be ISO 13485 certified.	No Change
3	Electronic hypoxic guard to ensure 25% oxygenation across all O2-N2O gas mixes	**Section-VII(Pg. No-84)** **Gas Management:** 8. Mechanical hypoxic guard to ensure 25% oxygenation across all O2 -N2O gas mixes	**Amended** Electronic hypoxic guard to ensure 25% oxygenation across all O2-N2O gas mixes
4	Should have at-least two drawers for storage and 1 lockable writing tray	**Section-VII(Pg. No-84)** **Gas Management:** 14. Should have three drawers for storage	**Amended** Should have three drawers for storage or at-least two drawers for storage and 1 lockable writing tray
5	Must have inbuilt Anesthesia Gas monitoring module	**Section-VII(Pg. No-84)** **Gas Management:** 15. Should have an additional receptacle for accepting/integrating Anaesthesia Gas monitoring module	**Amended** Should have an additional receptacle for accepting Anaesthesia Gas monitoring module or inbuilt Anaesthesia Gas monitoring module.
6	Should have a decision support tool for fresh gas flow for minimal flow anaesthesia minimizing the chance of hypoxia Request to delete the chance of hypoxia & include minimizing gas volume deficiency during low flow	**Section-VII(Pg. No-84)** **Gas Management:** 16. Should have a decision support tool for fresh gas flow for low flow/minimal flow anaesthesia minimizing the chance of hypoxia	**Amended** Should have inbuilt safety software which will tell the accurate amount to ensure minimal flow.
7	The machine should have automatic calculations and presetting of patient specific ventilation settings via ideal body weight, age and height.	**Section-VII(Pg. No-84)** **End tidal Control/target controlled anaesthesia:**	No Change
8	This has to be deleted as anaesthetist involvement is required all the time to administer safe anaesthesia OR Kindly remove this point from technical specification. Request to delete and include— It should be able to predict the future trend of inspiratory and expiratory anaesthetic agent concentration and O2 for the next 20 minutes as minimal flow support to guide appropriate vaporizer settings	**Section-VII(Pg. No-84)** **End tidal Control/target controlled anaesthesia:** 17. End Tidal Control / Target control – automated Low flow option for volatile anaesthesia should be incorporated so that Target controlled Anaesthesia can be used, wherein the ETO2 and ETAA and Min FGF flow are set, and the machine takes care of closed loop equilibrium for volatile agent and works like cruise control. Estimated MAC display to help set the target ETAA is preferred.	No Change
9	Key filler type vaporizer for easy replacement from other OT's I case of an emergency. Point no 25 has been asked for pour fill type Request to delete this point as it is company specific	**Section-VII(Pg. No-84)** **Digital Vaporizers:** 18. Electronically controlled agent delivery. Fast and instant agent delivery with no warming time. Vaporizer must be isolated from the gas flow in the off position.	**Amended** Electronically controlled agent delivery, fast and instant agent delivery. Vaporizer must be isolated from the gas flow in the off position.

	Mechanically/Pneumatically controlled agent delivery. Fast and instant agent delivery with no warming time. Vaporizer must be isolated from the gas flow in the off position.		
10	Agent specific, maintenance free, light weight Vaporizers. Request to delete--- Cassette	**Section-VII(Pg. No-84)** **Digital Vaporizers:** 19. Agent specific, maintenance free, light weight cassettes.	**Amended** Agent specific, maintenance free, light weight Vaporizers.
11	Request to delete it. As it is of a specific company	**Section-VII(Pg. No-84)** **Digital Vaporizers:** 20. No warm up time for Desflurane.	**Amended** **Digital Vaporizers:** 20. Deleted
12	Kindly remove this point from technical specification.	**Section-VII(Pg. No-84)** **Digital Vaporizers:** 23. "Low agent level" Alarm for all Anesthetic agent.	No Change
13	Should be supplied with Isoflurane and Sevoflurane vaporizer of one each and should be pour/Quick fill type.	**Section-VII(Pg. No-84)** **Digital Vaporizers:** 25. Should be supplied with Isoflurane and Sevoflurane vaporizer of one each and should be pour fill type.	**Amended** Should be supplied with Isoflurane and Sevoflurane vaporizer of one each and should be pour/Quick fill type.
14	Request to add integrated breathing system warmer for breathing gas conditioning and avoidance of condensation.	**Section-VII(Pg. No-84)** **Digital Vaporizers:** 28. Breathing system shall have integrated volume sensing of a type that does not require daily maintenance.	**Amended** Breathing system shall have integrated volume sensing that does not require daily maintenance or shall have integrated heater to prevent condensation.
15	In case of bellow ventilator	**Section-VII(Pg. No-84)** **Digital Vaporizers:** 32. Ventilator bellows shall be integrally mounted to the breathing system.	**Amended** Ventilator bellows shall be integrally mounted to the breathing system or any equivalent technology shall be available.
16	Should have the facility to check leakages in whole system. Should have the facility to check leakages in whole system & individually also -like breathing system including vaporizer, Patient circuit	**Section-VII(Pg. No-85)** **Breathing System:** 37. Should have the facility to check leakages in whole system & individually also -like breathing system, Vaporizer1, vaporizer2, Patient circuit.	No Change
17	Kindly remove this point from technical specification. In case of electrical driven it is not required	**Section-VII(Pg. No-85)** **Ventilation:** 40. Option of using Medical Air or Oxygen as driving gas	**Amended** Option of using Medical Air or Oxygen as driving gas or electrical driven.
18	PEEP: 1 to 35 cms H2O	**Section-VII(Pg. No-85)** **Ventilation:** 44. PEEP: Off, 4 to 30 cms H2O	No Change
19	Display all set and Monitored parameters like Volumes, Rate, Timing & Pressure.	**Section-VII(Pg. No-85)** **Display:** 55. Display all set and Monitored parameters like Volumes, Rate, Timing, Pressure, Pressure of Inlet Gases	No Change
20	Should display O2, CO2, detected Agent, Inspired and Expired O2, N2O, CO2, Agent Concentration values & MAC with Anaesthesia Gas Module is connected. Should display O2, CO2, Inspired and Expired O2, N2O,CO2, Agent Concentration values & MAC with Anaesthesia Gas Module is connected.	**Section-VII(Pg. No-86)** **Display:** 57. Should display O2, CO2 , detected Agent waveforms, Inspired and Expired O2, N2O, CO2, Agent Concentration values & MAC with Anaesthesia Gas Module is connected	**Amended** Should display O2, CO2, detected Agent, Inspired and Expired O2, N2O, CO2, Agent Concentration values & MAC with Anaesthesia Gas Module is connected.

21	Kindly remove this point from technical specification.	**Section-VII(Pg. No-86)** **Display:** 58. Cylinder & Pipeline pressure should be digitally available on screen along with the electronic flow display	No Change
22	Request to add- inbuilt AGM	**Section-VII(Pg. No-86)** **Anaesthesia Gas monitoring module:** 59. Should monitor inspired and Expired O2, N2O, CO2, Agent Concentration values & MAC	**Amended** Should monitor inspired and Expired O2, N2O, CO2, Agent Concentration values & MAC (either inbuilt or modular)
23	Should have sample gas return into the breathing system.	**Section-VII(Pg. No-86)** **Anaesthesia Gas monitoring module:** 60. Should automatically identify agents	No Change
24	Shall work on electric mains fitted with Indian plug/ European plug.	**Section-VII(Pg. No-86)** **Power:** 63. Shall work on electric mains fitted with Indian plug.	No Change
25	OEM to avoid local product	**Section-VII(Pg. No-86)** **Accessories/Consumables Required:** 65. Reusable adult silicone circuit: 2 each 66. Disposable adult circuit: 50 sets 67. Reusable paediatric silicon circuit: 2 each 68. Masks reusable of size 1,2,3,4: 1 each	No Change
26	Inbuilt OEM	**Section-VII(Pg. No-86)** **Accessories/Consumables Required:** 74. AGM module: 1 each	**Amended** AGM module: 1 each (either inbuilt or module from same manufacturer only)
27	Specification of High End OR Monitor may be added	**Additional point suggested to specification**	**Amended** The Specification of High End OR Monitor as mentioned under item **"Anaesthesia Workstation System With High End OR Monitor"** incorporating the amendments as mentioned above shall be considered.
15.MANNEQUIN WITH SIMULATION CPR AND ACLS TRAINING			
1	Provide – Defibrillator Training cab be done with Real Life Defibrillator and Resuscitation with ECG Simulation	**Section-VII (Pg. No-86)** 2. Provide – Defibrillator Training and Resuscitation.	**Amended** Provide – Defibrillator Training cab be done with Real Life Defibrillator and Resuscitation with ECG Simulation.
2	There should be mechanical & Software feedback system as per 2015 AHA Guideline	**Section-VII (Pg. No-86)** 5. There should be feedback devices.	**Amended** 5. There should be mechanical & Software feedback system as per 2015 AHA Guideline.
3	Enhanced measurement and feedback capabilities. Laptop should be provided with the system.	**Section-VII (Pg. No-87)** 9. Enhanced measurement and feedback capabilities.SS	**Amended** 9. Enhanced measurement and feedback capabilities. Laptop should be provided with the system.
4	Should be USFDA or European CE or ISO certified issued by notified agency.	**Section-VII (Pg. No-87)** 11. Should be USFDA or European CE certified issued by notified agency.	**Amended** 11. Should be USFDA or European CE or ISO certified issued by notified agency.
16. BIS (Bispectral Index Monitoring System)			
1		**Section-VII (Pg. No-87)** **Accessories** ➢ Minimum 50 pcs. of BIS adult sensors (Disposable).	**Amended** **Accessories** ➢ Minimum 50 pcs. of BIS adult sensors (Disposable) ➢ Minimum 10 pcs. of BIS paediatric sensors (Disposable)

17. Noninvasive Cardiac Output Monitor			
1	Or give continues Cardiac Output by connecting 4 skin sensors and using Electrical Cardiometry / Velocimetry.	**Section-VII (Pg. No-88)** 2. It should be able to give continuous Cardiac Output using continuous noninvasive arterial pressure waveform, using "volume clamp and physical methods", obtained by placing a disposable cuff on an index finger, ring finger, or middle finger.	**Amended** 2. It should be able to give continuous Cardiac Output using continuous noninvasive arterial pressure waveform, using "volume clamp and physical methods", obtained by placing a disposable cuff on an index finger, ring finger, or middle finger OR It should be able to give continous cardiac output by connecting 4 skin sensors and using Electrical Cardiometry / Velocimetry.
2	This point is company specific and should be deleted	**Section-VII (Pg. No-88)** 3. The cuff should not be placed on thumb or previously fractured fingers.	**Amended** This point is deleted.
3	It should work with other equipment in the critical care	**Section-VII (Pg. No-88)** 4. The Disposable Sensor should be able to give Continuous arterial pressure waveform when connected, on other bedside patient monitors.	**Amended** The Disposable Sensor should work with other equipment in the critical care.
4	Please add : Additional hemodynamic parameters preferred like Contractility (should be able to noninvasively monitor brachial artery pressure) – this point should be deleted	**Section-VII (Pg. No-88)** 5. The disposable finger cuff should be able to noninvasively monitor brachial artery pressure and other key hemodynamic parameters such as Cardiac Output (CO), Stroke Volume (SV), Stroke Volume Index (SVI), Cardiac Index (CI), Stroke Volume Variation (SVV), Mean Arterial Pressure (MAP), Diastolic Pressure (DIA), and Systolic Pressure (SYS).	**Amended** The disposable finger cuff should be able to noninvasively monitor key hemodynamic parameters such as Cardiac Output (CO), Stroke Volume (SV), Stroke Volume Index (SVI), Stroke Volume Variation (SVV).
5	This point is company specific and should be deleted	**Section-VII (Pg. No-88))** 6. Real-time brachial Blood Pressure waveform should be displayed on the trend screen.	**Amended** This point is deleted.
6	This point is company specific and should be deleted	**Section-VII (Pg. No-88)** 7. The double cuff pressure controller should be able to alternate b/w finger cuff allowing for monitoring in longer surgical cases.	**Amended** This point is deleted.
7	This point is company specific and should be deleted	**Section-VII (Pg. No-88)** 8. IFM out serial port and HL7 connectivity for both minimally invasive and noninvasive technologies.	**Amended** This point is deleted.
8	It should be able to give Cardiac output update every 20 Seconds or less	**Section-VII (Pg. No-88)** 10. It should be able to give Cardiac output update every 20 Seconds.	**Amended** It should be able to give Cardiac output update every 20 Seconds or less
9	It should be portable for emergency usage and pole mountable points to be deleted.	**Section-VII (Pg. No-88)** 12. It should be pole mountable, must have display capacity of at least 4 trend lines and 4 numerical display, optional physiology and physio-relationship screen, graphical trend, tabular trend, big numbers, cockpit screen.	**Amended** 12. It should be either pole mountable or portable and must have display capacity of at least 4 trend lines and 4 numerical display, optional physiology and physio-relationship screen, graphical trend, tabular trend, big numbers, cockpit screen.
10	It should have a touch screen with active area of 10.4 inch or more.	**Section-VII (Pg. No-88)** 17. It should have a touch screen with active area of 10.4 inch	**Amended** 17. It should have a touch screen with active area of 10.4 inch or more.

11	This point is company specific and should be deleted	**Section-VII (Point No- 18 (Pg. No-88))** The noninvasive should system be able to switch from noninvasive (pump unit) to minimally invasive (data box) technology, if required.	**Amended** This feature is not mandatory.
19. SURGICAL STAPLERS			
1	1. a. Linear cutter disposable handle – 55/60 mm- 20 Nos. d. Knife Module is available either with the stapler or with the cartridge (separate knife module is not required) 1. a. Linear cutter reusable handle – 55/60 mm- 20 Nos. b. Cartridge (blue) - 55/60mm- 150 nos. (should be compatible with item no .1(a)) c. Cartridge (Green) - 55/60mm- 50 nos. (should be compatible with item no .1(a)) d. Knife Module – 55mm – 70 Nos. 1. a. Linear cutter disposable handle – 55/60 mm- 20 Nos. b. Cartridge (blue) - 55/60mm- 150 nos. (should be compatible with item no .1(a)) c. Cartridge (Green) - 55/60mm- 50 nos. (should be compatible with item no .1(a))	**Section-VII(Pg.No-89)** 1. a. Linear cutter reusable handle – 55/60 mm- 20 Nos. b. Cartridge (blue) - 55/60mm- 150 nos. (should be compatible with item no .1(a)) c. Cartridge (Green) - 55/60mm- 50 nos. (should be compatible with item no .1(a)) d. Knife Module – 55mm – 70 Nos.	**Amended** 1. a. Linear cutter reusable handle – 55/60 mm- 40 Nos. b. Cartridge (blue) - 55/60 mm- 300 nos. (should be compatible with item no .1(a)) c. Cartridge (Green) - 55/60 mm- 80 nos. (should be compatible with item no .1(a)) d. Knife Module – 55/60 mm – 140 Nos. (separate knife module is not required if it is inbuilt with each Cartridge)
2	2. a. Linear cutter disposable handle – 75/80mm- 20 Nos. d. Knife Module is available either with the stapler or with the cartridge (separate knife module is not required) 2. a. Linear cutter disposable handle – 75/80mm- 20 Nos. b. Cartridge (blue) - 75/80mm- 150 nos. (Should be compatible with item no .2(a)) c. Cartridge (Green) - 75/80mm- 30 nos. (Should be compatible with item no .2(a))	**Section-VII (Pg. No-90)** 2. a. Linear cutter reusable handle – 75/80mm- 20 Nos. b. Cartridge (blue) - 75/80mm- 150 nos. (Should be compatible with item no .2(a)) c. Cartridge (Green) - 75/80mm- 30 nos. (Should be compatible with item no .2(a)) d. Knife Module – 75mm – 70 Nos.	**Amended** This point is deleted.
3		**Section-VII (Pg. No-90)** 3. a. Linear cutter handle accommodating three rows of cartridges – 55/60mm- 5 Nos. b. Cartridge for item no-3(a) - 55/60mm- 50 Nos.	**Amended** 3. a. Linear cutter handle accommodating three rows of cartridges– 55/60mm- 10 Nos. b. Cartridge for item no-3(a) - 55/60mm- 100 Nos.
4	Linear cutter handle accommodating two rows of cartridges – 75/80mm	**Section-VII (Pg. No-90)** 4. a. Linear cutter handle accommodating three rows of cartridges – 75/80mm- 5 Nos.	**Amended** This point is deleted.
5	5. a. Linear Stapler 30/45/60 mm – 10 Nos. b. Cartridge for Linear stapler – 30/45/60 mm – 60 Nos.	**Section-VII (Pg. No-90)** 5. a. Linear Stapler 45/60mm – 10 Nos. b. Cartridge for Linear stapler – 45/60 mm – 60 Nos.	No Change
6	6. a. Curved/Articulating linear cutter cum stapler – 40/45/60 mm – 3 Nos. b. Cartridge Curved/Articulating linear cutter cum stapler – 40/45/60 mm- 20 Nos.	**Section-VII (Pg. No-90)** 6. a. Curved linear cutter cum stapler – 40/45 mm – 3 Nos. b. Cartridge Curved linear cutter cum stapler – 40/45 mm- 20 Nos.	**Amended** 6. a. Curved/Articulating linear cutter cum stapler – 40/45/60 mm – 3 Nos. b. Cartridge Curved / Articulating linear cutter cum stapler – 40/45/60 mm- 20 Nos.

7	9. Circular stapler Curve- 31/32/33 mm- 100 Nos.	**Section-VII (Pg. No-90)** 9. Circular stapler Curve- 31/33mm- 100 Nos.	**Amended** 9. Circular stapler Curve- 31/32/33 mm- 100 Nos.
8	Can be omitted as in the suggested specification, knife module is available either with the stapler or with the cartridge (Separate Knife module is not required)	**Section-VII (Pg. No-90)** **N.B. 2.** During price comparison, one knife module for every 5 cartridges will be taken in to account, in case knife module is not in built.	**Amended** This point is deleted.
20. Carbon Dioxide LASER			
1	Should be removed from list as in this procedure CO2 Laser is not in use. No such supportive is their for the same procedure to be treated by CO2 laser. In same procedure ND-YAG laser is preferably used.	**Section-VII (Pg. No-90)** **Possible Interventions in ENT with CO2 Laser** 2. Tracheobronchial Endoscopy: a. Tumors b. Papillomas c. Stenoses	No Change
2	Made by reputed manufacturer and should meet international safety standards as US FDA and European CE and ISO 13485	**Section-VII (Pg. No-91)** **Possible Interventions in ENT with CO2 Laser** 7. The Carbon Dioxide Laser should meet the following NORMS, certificate to be enclosed. a. EC medical products guideline 93/42/EEC b. CE 0297 c. DIN EN 60601-1 d. DIN EN ISO 9001 e. DIN EN ISO 13485	No Change
3	Should be equipped with one touch tab/switch to choose either wave guide or articulated arm modality without changing any part.	**Section-VII (Pg. No-91)** **Technical Specification of CO2 laser** 9. Quick Tip panel for straightforward and user-friendly operation.	**Amended** Should be equipped with one touch tab / switch to choose either wave guide or articulated arm modality without changing any part.
4	should be microprocessor control with self calibration and touch screen operating panel	**Section-VII (Pg. No-91)** **Technical Specification of CO2 laser** 10. 8 different operating modes available for fast selection	**Amended** Should be microprocessor control with self calibration and touch screen /LCD operating panel.
5	Min 100 + custom Memory Setting capacity	**Section-VII (Pg. No-91)** **Technical Specification of CO2 laser** 11. 5 freely assignable memory keys for storing customized performance parameter under any name	**Amended** 11. Deleted
6	Should have sealed Co2 laser tube and is equipped with Continuous Power (CW), Single pulse and char free super pulse.	**Section-VII (Pg. No-91)** **Technical Specification of CO2 laser** 12. The implemented software offers users two different parameter selection option. a) Pulse/pause setting b) Pulse/frequency setting	**Amended** Should have sealed Co2 laser tube and is equipped with Continuous Power (CW), Single pulse and super pulse.
7	Should have Continuous Power (CW) Power of 40 Watt	**Section-VII (Pg. No-91)** **Technical Specification of CO2 laser** 14. The SUPERPULSE mode provides for a several times (max. ten-fold) higher output power characterized by extremely short pulse times of 0.3 ms with adjustable average power.	**Amended** Should have Continuous Power (CW) Power of 40 Watt or more.
8	Should have Super Pulse power of at least 15 watt. Should have repeat exposure as minimum as 0.01 sec to 1.0 sec which offer wide range of comfortability to the user and precision in surgery 17. Continuous wave (cw): Effective output power: 0.5- 40 W 18. Single pulse: Laser power: 40 watts, Pulse length: 5 ms -1 second	**Section-VII (Pg. No-91)** **Operating modes** 17. Continuous wave (cw): Effective output power: 2-25 W; CW 18. Single pulse: Laser power: 10-25 watts, Pulse length: 5 ms -10 sec 19. Pulse train: Average laser power: 0.1- 25 watts, Duration: 5 ms-10 s, Repetition frequency: 0.1-60 Hz 20. Super pulse: Laser power: 0.3-11 W	**Amended** **Operating modes** 17. Should have Super Pulse power of 15 watt or more. Should have repeat exposure as minimum as 10 ms to 10 sec which offer wide range of comfortability to the user and precision in surgery. 18 to 21- Deleted

	19. Pulse train: Average laser power: 40 watts, Duration: 1 ms-1 sec 20. Super pulse: Laser power: 40 W average power; peak power: max. 10-fold increase Pulse length: 0.3 ms to 5 ms 21. Cycle mode: Cyclically repetitive pulses, Cycle length: permanent 1 ms-1 sec	average power; peak power: max. 10-fold increase Pulse length: 0.3 ms 21. Cycle mode: Cyclically repetitive pulses, Cycle length: permanent 10 ms-10s	
9	Should have 5 mw Red Diode Aiming Beam, 635 nm, Adjustable Intensity. Aim Beam, Diode Laser, 635 nm	**Section-VII (Pg. No-92)** **Description** 23. Pilot laser: diode laser, 635 nm, infinitely adjustable, Power: max. 2 mW (standard version) max. 5 mW (ENT version)	**Amended** Pilot laser: Diode laser , 635 nm, adjustable intensity Power: 5 mw (maximum)
10	Should be capable of delivering laser beam suited for precise cutting/ ablation of tissues without excessive lateral tissue thermal damage through both hollow guide wire and 7 joint spring balanced arm 144 cm reach , 360 degree rotation 7 joint Articulated Arm	**Section-VII (Pg. No-92)** **Description** 24. Beam delivery: Articulated mirror arm, carbon-fiber tube, spring- supported with 7 joints/mirrors, arm length 1300 mm, hand piece exchangeable, 2 different spring-return forces selectable Micromanipulator for precise application, Minimal Spot size of 0, 11 mm	**Amended** Should be capable of delivering laser beam suited for precise cutting/ ablation of tissues without excessive lateral tissue thermal damage through both hollow guide wire and 7 joint spring balanced arm.
11	Hand piece with 50 to 200mm focal length Micro- manipulator compatible with standard operating microscopes (Adaptors should be provided if applicable). Should have adjustable working distance at least between 225 - 400 mm. Should be capable of delivering spot size suitable for use in laryngeal surgery (including Phono surgery) - minimum of at least 0.160mm. Should have suitable Hand piece set for oral pharyngeal and nasal applications. Co2 laser protective googles for surgical team (At least 05 Nos). Should be supplied with 125 mm focal length hand piece for creating 0.2 mm spot size for better power densities.	**Section-VII (Pg. No-92)** **Description** 25. Focus diameters: Focal length Hand piece focus 50 mm 0.08 mm 127 mm 0.20 mm 200 mm 0.32 mm	**Amended** Hand piece with 50 to 200 mm focal length
12	It should have a self – contained closed loop cooling system	**Section-VII (Pg. No-92)** **Description** 26. Cooling Internal	**Amended** Internal Cooling or should have a self – contained closed loop cooling system.
13	Not Required	**Section-VII (Pg. No-92)** **Description** 27. Protection Class : I	**Amended** 27. Deleted
14	Not Required	**Section-VII (Pg. No-92)** **Description** 28. Classification MDD:II b	**Amended** 28. Deleted
15	Not Required	**Section-VII (Pg. No-92)** **Description** 29. Laser Class : IV	**Amended** 29. Deleted
16	To be deleted as it become company specific Height with folded-down articulated arm: 1180 mm Not Required	**Section-VII (Pg. No-92)** **Description** 30. Dimensions (H x W x D): 2000x 290x 450 mm, Height with folded-down articulated arm: 1180 mm	**Amended** 30. Deleted
17	Should be compatible with 230V, 3A, 50Hz power supply.	**Section-VII (Pg. No-92)** **Description**	**Amended** 31. Deleted

	Power input consumption: max. 1100 W Not Required	31.Power input/Consumption:max.1100 W 32.Power requirements:230V AC/4A/50-60 Hz	32.Power requirements :230 V AC / 50-60 Hz
18	Separate port for fibre and articulated arm with one touch automatic change over to fibre port or arm port CO2 fibre- 01 no.	**Section-VII (Pg. No-92)** **34. Fibre accessories:** a) Reusable CO2 fibre- 01 nos.	**Amended** Should be supplied with Reusable CO2 fibre 01 No. or Limited use CO2 fibre of 10 nos. **[Cost of CO2 fibre (Reusable/Limited use) shall have to be quoted as price break-up under Format-B of financial bid]**
19	Rigid hand piece kit at least 8 rigid hand pieces with hand piece cleaning kit 40 mm,70 mm, 100 mm, 300 mm hand piece, which can be bend to different angles	**Section-VII (Pg. No-92)** **34. Fibre accessories:** b) Rigid hand piece kit at least 8 rigid hand pieces with hand piece cleaning kit 60 mm, straight, straight tip, 180 mm, straight, straight tip, 60 mm, straight, curved tip, 140 mm, straight, curved tip 180 mm, straight, curved tip, 240 mm, bent, curved tip, 140 mm, bent, straight tip, 240 mm, bent, straight tip	No Change
20	Endoscope protection sheath (Indian make)	**Section-VII (Pg. No-92)** **34. Fibre accessories:** c) Endoscope protection sheath – 2 nos.	No Change
21	Fibre Length : ID:-500 mm- 640 mm & OD: 1.0-1.7 mm, Length 2 meters minimum Length 2 meters	**Section-VII (Pg. No-92)** **34. Fibre accessories:** d) Fibre Length: 640 mm & OD: 1.7 mm	**Amended** Fibre Length : ID:-500 mm - 640 mm & OD: 1.0 - 1.7 mm, Length 2 meters minimum
22	Not required	**Section-VII (Pg. No-92)** **34. Fibre accessories:** e) Hand piece bending tool	No Change
23	Hand piece cleaning kit: includes 3 cleaning brushes and 20 extra silicone tubes for hand pieces- Indian make Hand piece cleaning kit	**Section-VII (Pg. No-92)** **34. Fibre accessories:** f) Hand piece cleaning kit: includes 3 cleaning brushes and 20 extra silicone tubes for hand pieces	No Change
24	Should have smoke evacuation system. Online UPS of 3 KVA to be provided	**Additional point suggested to specification**	**Amended** Online UPS of suitable capacity for at least 30 minutes back up should be supplied with the system.
22.VIDEO LARYNGOSCOPE			
1	Required is Macintosh blades with closed European Metal finish / SS 316 size 2, 3 and 4 with integrated camera chip and LED light illumination details should be provided. At least 2 units each of MAC2, MAC3, MAC4, BLADE should be provided	**Section-VII (Pg. No-94)** **Technical Specification:** Laryngoscope required with video illumination to visualize and document the operational area on screen. It should consist of following features: 5. Required is Macintosh blades with closed European Metal finish size 2, 3 and 4 with integrated camera chip and LED light illumination for obtaining more than 50,000 Lux of brightness.	No Change
2	This specs is not required, should be deleted. As it depends upon the end user whether they requires stylet or not.	**Section-VII (Pg. No-94)** **Technical Specification:** 6. Mac blade should not require any stylet for tube placement.	No Change
3	For wide participation, the amendment should be made: One special blade for difficult intubation with device for introduction of suction catheter for size 16-18 Fr., angle of view should be approx. 60 degree and above. At least 2 units Blades for Difficult Airway Blade	**Section-VII (Pg. No-94)** **Technical Specification:** 7. One special blade for difficult intubation with device for introduction of suction catheter for size 16-18 Fr., angle of view should be approx 80 degree.	No Change

	MAC 5 should be provided.		
4	As per point 5 & 7 amendment we request to make it at least 2 units each.	**Section-VII (Pg. No-94)** **Technical Specification:** 8. One miller size 0 & 1 blade should present in the set.	No Change
5	For wide participation, the amendment should be made: Video laryngoscope should have the option to connect to a big size screen with HDMI or HD output. And the minimum screen size should be minimum 3 inches or dedicated monitor based type.	**Section-VII (Pg. No-94)** **Technical Specification:** 9. Screen 7 inch or more in size for display with feature control buttons on the screen with HDMI or HD output for connecting to a big screen. Two output ports with monitor to connect scope and video laryngoscope at one time and toggle button to use the same once at a time.	No Change
6	This feature is a locked specification. When procedure being taken for intubation why need for flexible scope in this. Hence this point should be deleted. To allow maximum bidders participation	**Section-VII (Pg. No-94)** **Technical Specification:** 12. Monitor should have a facility to connect flexible scope directly without any special coupler or accessory.	No Change
7	Amendment required for wider participation: If the machine is a dedicated monitor based machine then soft bag should be supplied to place the monitor and system can also be operated without taking monitor out from the bag. This would not be a mandatory feature	**Section-VII (Pg. No-94)** **Technical Specification:** 14. Soft bag should be supplied to place the monitor and system can also be operated without taking monitor out from the bag.	No Change
8	Amendment to be made: This point should be deleted as Magill forceps are usually available in all OT. So no point asking for the same. It clearly states that it's a single company specification	**Section-VII (Pg. No-94)** **Technical Specification:** 15. Magill forceps for foreign body removal and for assisting nasal intubation should be provided.	No Change
9	The specification is completely one single company specific. Amendment required for wider participation: For Video Laryngoscope monitor should be inbuilt with the handle / IV Stand for positioning the monitor with tray for laryngoscopes should be provided with the screen based Video Laryngoscope.	**Section-VII (Pg. No-94)** **Technical Specification:** 16. IV Stand for positioning the monitor with tray for laryngoscopes should be provided	No Change
10	Amendment required for wider participation: Any accessories if required like protection cap/tray for cleaning / sterilization of blades (at least two blades at a time) should be provided but not a mandatory feature.	**Section-VII (Pg. No-94)** **Technical Specification:** 17. Accessories like protection cap, tray for cleaning and sterilization of blades (at least two blades at a time) should be provided.	No Change
11	Amendment required for wider participation: Blades/if connection cable available should be fully immersible in disinfecting solution.	**Section-VII (Pg. No-95)** **Technical Specification:** 18. Blades and connection cable should be fully immersible in disinfecting solution.	No Change
12	Amendment required for wider participation : This point has been mentioned in point no.16 and the same has been repeated again to detail the monitor stand specification which should be deleted.	**Section-VII (Pg. No-95)** **Technical Specification:** 20. Stand for monitor, height 120 cm, rollable with five legs and antistatic castors, crossbar 25 cm x diameter 25 mm for positioning the monitor, with tray, dimensions (w x d x h): 30 x 20 x 10 cm use with: 8401YAA Crossbar 8401YB Crossbar.	No Change

23. Portable LED Headlight System			
1	Color temperature 4500 K--- 6500 K	**Section-VII (Pg. No-95)** 3. Color temperature 4500 K	**Amended** Color temperature 4500 K to 6500 K
2	Headlight Module with 80 mm— 100 mm or above Spot	**Section-VII (Pg. No-95)** 6. Headlight Module with 80mm Fixed Spot	**Amended** Headlight Module with 80 mm—100 mm or above Spot
3	Variable Intensity Control – 1,50,000 Lux to 2,00,000 Lux	**Section-VII (Pg. No-95)** 7. Variable Intensity Control – 0 to 34,000 Lux	**Amended** Variable Intensity Control – 1,00,000 Lux or above
4	2 Nos. Clip-on Power Pack With Rechargeable Battery	**Section-VII (Pg. No-95)** 14. 1 Clip-on Power Pack With Rechargeable Battery	**Amended** 4 Nos. Clip-on Power Pack With Rechargeable Battery
5	The model should be USFDA or European CE certified	**Additional point suggested to specification**	**Amended** The model should be USFDA or European CE certified.
24. ETO STERILIZER			
1	The sterilization chamber should be single walled / double walled, corrosion and gas resistant of suitable alloy. The chamber shall be insulated against heat emission – specify the mechanism of heat insulation	**Section-VII (Pg. No-96)** 2. The sterilization chamber should be double walled, corrosion and gas resistant of suitable alloy. The chamber shall be insulated against heat emission – specify the mechanism of heat insulation.	**Amended** The sterilization chamber should be single walled / double walled, corrosion and gas resistant of suitable alloy. The chamber shall be insulated against heat emission – specify the mechanism of heat insulation.
2	Temperature range should be changed to 33 to 55 degree Fully Comply	**Section-VII (Pg. No-96))** 7. The ETO sterilizer should be able to operate for the minimum essential following cycles programs: a. Sterilization cycle for heat sensitive objects that ensure temperature from 40-55˚C with subsequent aeration for protection of the operating personnel.	No Change
3	Capacity of the Equipment Should be changed to 7.9 Cubic Feet / or Equivalent to 220-240 Litres. We recommend to keep between 210-240 litres loading capacity.	**Section-VII (Pg. No-96)** 8. Capacity: Should have one-time loading of 24-33 cu. ft. With capacity to process 36-48 fu. ft. /24 hr. Firm should clearly state cycle time (Time from start to finish including aeration time) so that capacity to process total load in 24 hr can be calculated.	No Change
4	EO cartridge supplied should be EPA certified/ compatible cartridge as per the system	**Section-VII (Pg. No-96)** 9. Gas cartridges should be EPA certified.	No Change
5	The ETO sterilizer should have compliance to OSHA / NIOSH exposure monitoring / occupational health & safety management system ISO 45001 certification.	**Section-VII (Pg. No-97)** 12. The ETO sterilizer should have compliance to OSHA/NIOSH exposure monitoring.	No Change
6	Should be USFDA / CE Certified / BIS Certified.	**Section-VII (Pg. No-97)** 13. Should be USFDA/ European CE certified. Certificate to be provided.	No Change
7	Sterilization basket / Tray of suitable size: 2-3 Nos.	**Section-VII (Pg. No-97)** **Accessories** 17. Each ETO sterilizer shall be equipped with the following accessories: a. Sterilization basket / Tray of suitable size: 3 Nos.	No Change

8	Sterilizer should have automatic gas puncturing system and work under NEGATIVE PRESSURE ensuring operator safety.	**Additional point suggested to specification**	No Change
9	Sterilizer should have high resolution 4 colour touch screen which can display live color cycle chart with pressure, temperature & Relative humidity profile	**Additional point suggested to specification**	No Change
26. Intra operative Ultrasound			
1	The system should have more than 3, 50, 000 digital system processing channels.	**Section-VII (Pg. No-99)** **(V) Scanning Parameters** 19. The system should have more than 2, 50, 000 digital system processing channels.	No Change
2	The system shall include at least 500 GB hard drive for large local storage capacity.	**Section-VII (Pg. No-100)** **(X) Image Archive and Networking** 29. The system shall include at least 100 GB hard drive for large local storage capacity.	No Change
28. Routine Surgical Instrument			
1	Product should be European CE or USFDA certified	**Section-VII (Pg. No-102)** **COMMON PRODUCT QUALITY STANDARD:** a. Product should be BIS or CE or USFDA certified/registered. The CE certificate issuing agency should be from European Union country if CE certificate is not issued by notified body for the instruments. USFDA registration must be supported by valid certificates.	**Amended** Product should be USFDA or European CE certified.
2	Material should be Stainless Steel (Instruments) or Tungsten Carbide (TC) as mentioned. Material also should be coated with chromium oxide layer. According to ASTM (Chromium Resistant Layer)—A 967	**Section-VII (Pg. No-102)** **COMMON PRODUCT QUALITY STANDARD:** d. Material should be Stainless Steel (Instruments) or Tungsten Carbide (TC) as mentioned.	No Change
3	m. The MANUFACTURER of the offered products must prove, that it is certified according DIN EN ISO 9001, DIN EN ISO 13485 & EWG 93/42,AnnexII. The MANUFACTURER has to specify in an attached paper, his quality criteria & reference criteria which it takes as a basis for the instrument production. n. According to the DIN EN ISO 17664 the manufacturer must specify where & in which from the relevant information for REPROCESSING of STRILIZABLE MEDICAL PRODUCTS are made available for the customer.	**Additional Certifications suggested to specification**	No Change
4	Abdominal Retraction using flexible arm:- 4 SETS a. Universal Single Flex Arm Plus System for Retraction and holding instruments. b. Capable of being flexible and tightened in any direction held by table clamp and holder. c. Universal quick connect Hex fitting. d. Small 5.0mm Nathanson Retractor & Medium 5.0 mm Nathanson Retractor e. Stainless steel instrument	**Section-VII (Pg. No-103)** **3. Malleable copper retractor for abdominal surgery- one set of three retractors- 4 sets** a. One set - Sizes- 2.5 inches, 3 inches, 4 inches Autoclavable	No Change

	clamp attachment with hex fitting. f. Delrin Instrument clamp attachment with Hex fitting. g. Quick-Grip scope Holding Attachment, Hex fitting, 10 mm & 5 mm. h. Should be capable of attaching and fixing into Quick connect Flex arm.		
5	Deep pelvic retractor with FRAMES & BLADES for GYNAECOLOGY / UROLOGY/COLO RECTAL – 8 Nos. a. Flexible arm with quick connect fitting and post and rail clamp:-1 no. b. Retractor frame with Hex Post approx 8" X 8.5":- 1 no. c. 12 mm Blunt Hook:- 1 Box. d. 5 mm Sharp Hook:- 1 Box. e. 5 mm Blunt Hook:- 1 Box. f. Blade, Kelly, 1X1 ½":- 1 no. g. Blade, Kelly, 1½" X 2":- 1 no. h. Blade, Malleable, 1" X 4":- 2 no. i. Blade, Deaver, ½" X 2":- 2 no. j. Blade, Rectal, 7/8 x 2 7/8" (2.2 cm x 7.3 cm):- 2 nos. k. Blade, Rectal, 7/8" x 3 7/8"(2.2 cm x 9.8 cm):- 1 no l. Blade, Renal Wiley, 1" x 7" (2.5 cm x 17.8cm):- 2nos m. Blade, Vaginal, Lateral, 1"x 3"(2.5 x 7.6 cm):- 2 nos n. Blade, Vaginal, Posterior,1 x 4 ½" (2.5x11.5 cm):- 2 nos o.Tilt Ratchet:- 4 nos p. Stays Sterile 4 box:- 4 nos.(5nos./box)	**<u>Section-VII (Pg. No-103)</u>** **6. Deep pelvic retractor- 8 Nos.**	**<u>Amended</u>** Deep pelvic retractor with FRAMES & BLADES for GYNAECOLOGY / UROLOGY/COLO RECTAL – 8 Nos. a. Flexible arm with quick connect fitting and post and rail clamp:-1 no. b. Retractor frame with Hex Post approx 8" X 8.5":- 1 no. c. 12 mm Blunt Hook:- 1 Box. d. 5 mm Sharp Hook:- 1 Box. e. 5 mm Blunt Hook:- 1 Box. f. Blade, Kelly, 1X1 ½":- 1 no. g. Blade, Kelly, 1½" X 2":- 1 no. h. Blade, Malleable, 1" X 4":- 1 no. i. Blade, Deaver, ½" X 2":- 1 no. j. Blade, Rectal, 7/8 x 2 7/8" (2.2 cm x 7.3 cm):- 1 nos. k. Blade, Rectal, 7/8" x 3 7/8"(2.2 cm x 9.8 cm):- 1 no. l. Blade, Renal Wiley, 1" x 7" (2.5 cm x 17.8cm):- 1nos. m. Blade, Vaginal, Lateral, 1"x 3" (2.5 x 7.6 cm):- 1 nos. n. Blade, Vaginal, Posterior,1 x 4 ½" (2.5x11.5 cm):- 1 nos. o. Tilt Ratchet:- 1 nos. p. Stays Sterile 4 box:- 1 nos. (5nos. /box)
6	HEAD & NECK (Thyroid retractor) – 2 sets a. Mini- Adjustable Split Ring 7"(17.8cm) Closed Diameter-1no b. Mini – Tilt Ratchet – 6 nos c. Mini-, Blade, Kelly, 3/8 x 1 ¼" (1.0x3.2cm)- 2 nos d. Mini-, Blade, Balfour Style 1 ½ x 1 ½" (3.8cmx3.8cm)-2nos. e.Mini-, Blade, Deaver, 1/2 x2" (1.3x5.1cm) – 1 no f. Mini-, Blade, Malleable ½ x2 ½"(1.3x6.4cm)- 1 no g. Mini-, Blade, Malleable ½ x 2 ¼"(1.3x5.7cm)- 1 no h. Univ. Single Flexible arm with	**<u>Section-VII (Pg. No-103)</u>** **9. Joll thyroid retractor- 2 sets** a. Self retaining retractor with lock-in for thyroid/neck surgeries b. Nut- 152 mm long	No Change

	Quick-Connect Hex Fitting for attaching the ring – 1no.		
7	instrument sterilizers to be mentioned separately as Accessories and Good quality Indian make trolley Trolley to be added as scope of supply under accessories.	**Section-VII (Pg. No-106)** **57. Small electric, instrument sterilizers- 20 Nos.** **Specifications:** a. 304 seamless Stainless steel 304, b. Size-(300x150x125) mm, c. Tray lifting system with the help of handle. d. Thermostatically controlled e. Water outlet tap, f. Hook for extraction of hot tray after sterilization, g. 220-240volts, single phase.	**Amended** **Accessories** 1. Small electric, instrument sterilizers- 20 Nos.(confirming to BIS standard) 2. Good quality Indian make trolley-1 No.
8	To be added that Manufacturer should be ISO 13485 certified.	**Section-VII (Pg. No-106)** **70. Finger probe- 40 nos.** a. Portable, battery operated, finger probe to measure oxygen saturation and pulse rate	**Amended** **70. Finger probe- 40 nos.** a. Portable, battery operated, finger probe to measure oxygen saturation and pulse rate (Manufacturer should be ISO 13485 certified).
9	To be added that it should be compatible to all types of Light sources.	**Section-VII (Pg. No-106)** **72. Self illuminating deep retractors-02 nos.**	**Amended** 72. Self illuminating deep retractors (02 nos.) should be compatible to all types of Light sources.

Queries and necessary recommendations relating to Techno-Commercial terms

Sl. No.	Queries raised by the prospective bidders	Original Specifications	Clarifications /Amendments in response to the queries
1	Please amend the delivery schedule for imported items, 90 days from the date of order as shipment takes time during import. Please extend the normal delivery period from 70 days to 90 days for all the imported items.	**Section-V (Point No.5.1.1 (Pg. No-16))** Delivery period -**70 days** from date of issuance of Purchase Order	**Amended** Delivery period -**90 days** from date of issuance of Purchase Order
2	Request to reduce the average annual turnover for Category-I from Rs. 5 Crore to Rs. 3 Crore. Request to put the item ULTRASONIC DEVICE CUM BIPOLAR VESSEL SEALING SYSTEM on Category-II and reduce the average annual turnover for Category-II from Rs. 2 Crore to Rs. 1 Crore or 1.5 Crore.(As total value will be below 1 Cr.)	**Section-V (Point No.5.2.2 (ii) (Pg. No-18))** 5.2.2 **Authorized Distributors** are eligible to participate in the bid provided: (ii) They should have Proof of Average annual turnover of **Rs.5 Crore or more for Category-I and Rs. 2 Crores or more for Category-II** in **last 3 financial years i.e. 2015-16, 2016-17 and 2017-18** as per **Format T8**. In addition to this, the distributor shall also submit the average annual turnover of the **manufacturer/importer** of the item(s) as mentioned in 5.2.1 (vii) above.	No Change
3	Payment should be 100% vide inland Letter of Credit with 80% payable on delivery & balance 20% within 30 days of installation.	**Section-VI (Point No.6.30 (Pg. No-42))** **Payment** 6.30.2 90% of the cost of the equipment (**excluding CMC Cost**) + 100% installation cost if any + 100% tax shall be paid to the supplier on receipt of the stock entry certificate, installation and demonstration /training of the item from the consignee. 6.30.3 The balance 10% of the payment of equipment will be made after receipt of certificate on working status of the equipment from the consignee after 8 weeks of installation and commissioning of the equipment.	No Change

4	Penalty for Liquidated Damages should be capped @ 5%.	**Section-VI (Point No.6.43.5 (Pg. No-53))** **Liquidated Damages**:- If the successful bidder fails to **deliver** any or all of the goods within the time frame(s) prescribed in the contract, the Tender Inviting Authority/User Institution shall, without prejudice to other rights and remedies available to the Tender Inviting Authority/User Institution under the contract, deduct from the contract price / purchase order price as liquidated damages, a sum equivalent to **1% of the value of the item** to be supplied **per week of delay** or **part thereof** on delayed supply of item (s) until actual delivery or performance subject to a **maximum** of **4%.** Managing Director, OSMCL reserves the right to allow an additional penal period of 4 (four) weeks beyond the normal penal period (4 weeks) on the written request of the supplier with the condition that liquidated damage **@ 1.5%** will be charged for each week or part thereof during the extended penal period.	No Change

N.B:-

1. **The amendments mentioned above are to be treated as amendments in the general term(s) and condition(s) and scope of work of the above tender reference. All other terms conditions remain unchanged.**

2. **Since any text in the price BOQ can't be changed in the e-tender portal, the amendments mentioned above are to be treated as amendments pertaining to price bid/ BOQ (if applicable).**

3. The necessary amendments for the items **Video Endoscopes with ERCP, Video Colonoscope, Video Sigmoidscope, Video Bronchoscope, Endoscopic Ultrasound System and High Frequency Mobile C-Arm Image Intensifier System** shall be finalized & floated on a later date.

4. For other items such as **KTP Laser , Attendant Bed , Electrical Drill and Saw, Micro vascular Surgical Set, Modular Scrub Station, Pneumatic Compression Pump, Digital Video Colposcope with HD signal output & Green Light Laser**, no queries/amendment requests has been received, hence the **tender specification remains unaltered.**

Sd/-
Managing Director
OSMC