

LOT 5 - OPERATION THEATRES

S/No	LOT NO.	EXPECTED EQUIPMENT	QTY	Estimated Units Price	Estimated Total Price
		4 general surgery rooms			
1.	8-1	Anaesthetic machines	3		
2.	8-2	Operation tables (for Kidney Transplant)	3		
3.	8-3	Electrosurgical units (with bipolar resection capability)	3		
4.	8-4	Digital X-Ray Viewer	2		
5.	8-5	Laser Holmium yag 30-35W(For lithotripsy)	1		
6.	8-6	Laser Holmium yag 120 W (For lithotripsy)	1		
		Theatre recovery			
7.	8-7	Fluid warmer	1		
8.	8-8	Hush Slush System (For cooling and warming during transplant)	1		
9.	8-9	Table flash Autoclave	1		
10.	8-10	Patient Trolleys	10		
11.	8-11	Patient Monitor	6		
12.	8-12	Transport Patient Monitor	1		
13.	8-13	Refrigerator	3		
14.	8-14	Instrument Trolley	7		
15.	8-15	Resuscitaire	2		
16.	8-16	Defibrillator	1		
17.	8-17	Gas Plasma sterilizer	1		

18.	8-18	Syringe pumps	10		
19.	8-19	Infusion pumps	5		
20.	8-20	Operation Microscope (Transplant Procedures)	1		
21.	8-21	Endoscopy Tower	1		
22.	8-22	Complete Laparoscopic towers with 4K image quality (Either on pendant or trolley)	1		

LOT 8: OPERATION THEATRES**LOT 8-1 Anaesthetic Machines**

Item Code No.	Department	Section	Item Description
LOT 8-1	Operations Theatre	General Surgery	Anaesthetic machine with ventilator
1. General Description			
Inhalation anaesthetic machine with inbuilt electronic ventilator complete with all accessories for low and high flow anaesthesia, adult, paediatric and infant application. It should include a patient monitor unit.			
2. Composition			
1.1.	Main unit	1 Unit	
	Electronic Ventilator	1 Unit	
	Patient Monitor	1 Unit	
	Optical Laryngoscope system for digital transmission to the workstation and external systems	1 Unit	
	Difficult airway Kit	1 Unit	
	Accessories complete start-up kit	1 Set	
3. Performance Specifications			
3.1.	Main Unit		
3.1.1.	Anesthetic trolley with minimum 3 drawers and a tabletop, with yokes for Oxygen (O ₂) Medical air (MA) and Nitrous Oxide (N ₂ O) portable cylinder and support for circle systems including hoses and absorbers and support for central pipeline gas system with support for Vacuum and AGSS. The offered brand and Model Should be under current production		
3.1.2.	Anesthetic trolley	With minimum of 3 drawers	
3.1.3.	Wheels	With castors, two with brakes	
3.1.4.	Gas delivery system	3 gas delivery system (O ₂ , N ₂ O and Air) with both inlets for central gas pipeline system, and separate portable cylinders.	
3.1.5.	Yokes	To support portable Oxygen (O ₂) Medical air (MA), and Nitrous Oxide (N ₂ O) cylinders, 11 liters each	
3.1.6.	Portable Oxygen (O ₂) Cylinder connection	Pin Index type	
3.1.7.	Portable Nitrous Oxide (N ₂ O) cylinder connection	Pin Index type	

Item Code No.	Department	Section	Item Description
LOT 8-1	Operations Theatre	General Surgery	Anaesthetic machine with ventilator
3.1.8.	Pressure regulators safety release valves and gauges for O ₂ , N ₂ O, MA and Vac.	Intergraded in the trolley	
3.1.9.	Central gas pipeline system	Standard BS connections and colour codes for O ₂ , N ₂ O, Air and Vacuum.	
3.2.	Flow meter	Separate flow meter for O ₂ , Air, N ₂ O and VAC	
3.2.1.	Breathing Circle System	Capable of performing Open, Semi-Open, Semi-Closed and Closed system	
3.2.2.	All patient connecting hoses	Corrugated, Transparent, autoclavable (134°C), φ 22 mm, with ISO connectors	
3.2.3.	CO ₂ absorber	Integrated, complete with Soda lime and switch for Magill's circuit.	
3.2.4.	Accessories: To be provided as startup kits.		
3.2.5.	Adult Breathing circuit for ventilator	2 Unit	
3.2.6.	Paediatric Breathing circuit for ventilator	2 Unit	
3.2.7.	Face Mask, Adult, Sizes 1, 2, 3 transparent type	2 Sets	
3.2.8.	Face Mask, Paeds, Sizes 1, 2, 3 transparent type	2 Sets	
3.2.9.	Breathing Bag Adult (2 L)	2 Sets	
3.2.10.	Breathing Bag Paeds (1L)	2 Sets	
3.2.11.	Breathing Bag Baby (0.5L)	2 Sets	
3.2.12.	Magill's circuit complete with adult mask	2 Sets	
3.2.13.	Ayres Paed circuit	2 Sets	
3.2.14.	CO ₂ absorber gas outlet		
3.3.	Vaporizer	Minimum Sevoflurane and Isoflurane	
3.3.1.	Compensation	Temperature, pressure, and flow compensated	
3.3.2.	Range	About 0.2% to 4%	
3.3.3.	Accuracy	± 0.15%	
3.3.4.	Keyed filler according to ISO standards	agent specific	

Item Code No.	Department	Section	Item Description
LOT 8-1	Operations Theatre	General Surgery	Anaesthetic machine with ventilator
3.3.5.	Adjustment	Large hand wheel with Zero Lock	
3.3.6.	Ambient Temperature	15°C to 35°C at Normal pressure	
3.3.7.	Maintenance	Service free for a minimum period of 5 years of usage	
3.4.	Safety controls		
3.4.1.	O ₂ supply failure	audible alarm with reset	
3.4.2.	Hypoxeguard	Minimum O ₂ 25%: Shut off supply	
3.4.3.		N ₂ O Shut off	
3.4.4.	O ₂ Flush Gas Supply	Above 30 L/ Min 2-6 bars	
3.4.5.	AGSS system provision	Provided for in the system	
3.4.6.	Pressure limiting valves	Incorporated into patient circuits at minimum.	
3.5.	Ventilator		
3.5.1.	Type	Microprocessor controlled and electrical/gas driven and be integral part of the workstation.	
3.5.2.	Application	Suitable for adult, paediatric and infant application without changing parts between patient types	
3.5.3.		Ventilation with ambient air possible	
3.5.4.	Modes	Minimal manual, spontaneous, IPPV, PCV, SIMV +PS, Facility to deliver sigh breaths.	
3.5.5.		It should have in built protection to patients against Volutrauma and Barotrauma.	
3.5.6.	Ventilator Parameter		
	Tidal Volume: IPPV	10 ml- 1600ml	
	P max (PEEP + 10)	Up to 70hPa	
	PEEP	about 0 to 20mbar	
	Frequency:	about 3 to 60/min	
	Insp flow	Max 150l/min	

Item Code No.	Department	Section	Item Description
LOT 8-1	Operations Theatre	General Surgery	Anaesthetic machine with ventilator
	Pinsp (PEEP + 5)	Up to 70kPa	
	I: E ratio	5:1 to 1:5	
	In case of failure	Switch to room air automatically	
3.5.7.	Minimum Monitored parameters:		
	a. Expired Tidal Volume		
	b. Minute Volume		
	c. Peak Inspiratory Pressure		
	d. Plateau Pressure		
	e. PEEP		
	f. Mean airway Pressure		
	g. Respiratory Rate		
3.6.	Display	colour display minimum 6"	
3.6.1.	Minimum Display parameters	Minute Volume	
		Tidal Volume	
		Rate	
		Pressure Peak Response, PEEP, FiO2	
		Graphic Trends	
		Anaesthetic agent Concentration	
3.7.	Patient monitor	To be mounted on the anesthetic machine	
3.7.1.	Parameters	Pulse rate	
		SpO ₂	
		Temperature: 2 probes	
		Blood pressure (NIBP and IBP)	
		ECG 5 leads	
		Peripheral nerve stimulator	
		S_T segment display	

Item Code No.	Department	Section	Item Description
LOT 8-1	Operations Theatre	General Surgery	Anaesthetic machine with ventilator
		Respiratory rate	
		Perfusion index	
3.7.2.	Display	Colour Display minimum 12"	
		5 Parameter display	
3.7.3.	Accessories: To be provided as startup kits.		
	SpO ₂ , Adult Sensor, Reusable	2 Pieces	
	SpO ₂ , Paediatric Sensor, Reusable	2 Pieces	
	SpO ₂ , Infant Sensor, Reusable	2 Pieces	
	Temperature	2 Probes	
	BP cuff, Large adult, reusable	2 Piece	
	BP cuff, adult, reusable	2 Piece	
	BP cuff, Small adult, reusable	2 Piece	
	BP cuff, Paed, reusable	2 Piece	
	BP cuff, Thigh, reusable	2 Piece	
	ECG 5 Leads	5 Piece	
	Soda lime	3 containers of 5-litre each	
		100 Pcs. CO2 sampling line	
		3 Piece PNS	
4.	Physical characteristics		
4.1	Main unit	mobile on casters	
	Outer dimensions	Compact design	
5.	Operating environment		
5.1	Power Requirements	240V, A/c 50 Hz, Single phase, 3 Pin UK Plug, 5m long power cord with PE	
	Ambient temperature	10° C to 40° C	
	Relative humidity	20% to 90%	

Item Code No.	Department	Section	Item Description		
LOT 8-1	Operations Theatre	General Surgery	Anaesthetic machine with ventilator		
6.	Backup Power supply				
1.2.	Internal battery	Internal battery			
7.	Quality standards				
1.3.	Manufacturing standards	ISO 13485, ISO 9001			
	Product conformity standards	EU-93/42/EEC, IEC 60601-1, EN 740 CE and FDA approved			
8.	Delivery point				
1.4.	See Schedule of equipment of equipment delivery				
9.	Installation and testing				
9.1.	Complete installation and set-up of the machine at the hospital as per manufacturer's instructions				
10.	Training				
10.1.	User Training	On site user training on operation and daily upkeep			
10.2.	Maintenance training	Onsite maintenance training on preventive maintenance			
11.	Technical documentations				
11.1.	User manuals	2 printed Sets and electronic copy			
11.2.	Service Manual	1 Set (Hard and Soft copy)			
12.	Commissioning				
12.1.	Testing and commissioning of the machine to the satisfaction of the user.				
13.	Warranty and After Sales Service:				
13.1.	The Equipment including all accessories including bought out items should be under WARRANTY for a period of at least TWO YEARS after successful installation and commissioning.				
13.2.	Comprehensive maintenance contract rates for 5 YEARS after warranty must be quoted separately and these would be taken into consideration while comparing price bids.				
13.3.	All spare parts and consumables should be available with supplier or principals for a period of at least 10 years.				

Item Code No.	Department	Section	Item Description
LOT 8-1	Operations Theatre	General Surgery	Anaesthetic machine with ventilator
13.4.	Should have local service facility. The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
14.	Other tender conditions		
14.1.	Suppliers should have been in the market for at least 3 years and should have a satisfied userbase for this equipment.		
14.2.	All Essential Spare parts / Consumables rates to be given separately which may be frozen during the equipment life.		
14.3.	Suppliers should have made a large number of installations, within the last five years, in the country in reputed institutions and preferably in Government Hospitals with a proven track record of excellent after sales support for this system.		
14.4.	List of references to be enclosed.		

LOT 8-2 Operation Tables (with Kidney Bridge)

Item Code No.	Department	Section	Item Description
LOT 8-2	Main Theatre	Operating theatres	Operating Theatre Table
1. General Description			
Operating table suitable for use in theatre for major operations. It should be capable of performing lateral tilt, up-down movement, trendelenburg and reverse trendelenburg position, back section refraction and kidney bridge. The movement should be electrohydraulic with manual option control system			
2. Composition			
2.1.	Main unit		
3. Physical Specifications			
3.1.	Main Unit		
3.1.1.	Tabletop	Approx. Length 2000 X width 600 mm	
3.1.2.		X-ray Permeable	

Item Code No.	Department	Section	Item Description
LOT 8-2	Main Theatre	Operating theatres	Operating Theatre Table
3.2.	Head rest	Detachable	
3.3.	Leg rests	Detachable/separable	
3.4.	Material of main unit	Made of scratch resistant, hard wearing and easy to clean material	
3.5.	Height of table top	Adjustable, mechanical operated, 600mm to 1100mm	
3.6.	Table top movements		
3.6.1.	Trendelenburg	Forward: 25°, Reverse: 25°	
3.6.2.	Lateral – tilt	~20° both to the left and right	
3.6.3.	Back- section refraction	90°	
3.6.4.	Tabletop turn	180°	
3.6.5.	Main unit movements	Mobile with antistatic castors with braking mechanism	
3.7.	Maximum load weight	250 Kg	
4.	Accessories	To be provided as startup kits.	
4.1.	Mattress	High density type easy to clean, 3” thickness with 4 sections, breathable, waterproof that does not stick to the table	
4.2.	Arm board with mattress	2 pieces	
4.3.	Shoulder support with pads	2 pieces	
4.4.	Foot board	1 set	
4.5.	Knee crutches	2 pieces	
4.6.	Screen frame	1 piece	
4.7.	Body support with pads	2 pieces	
5.	I. V. pole, adjustable height Orthopedic attachment	1piece 1 piece	

Item Code No.	Department	Section	Item Description
LOT 8-2	Main Theatre	Operating theatres	Operating Theatre Table
5.1.	Manufacturing standards	ISO 13485, ISO 9001	
5.2.	Product conformity standards	EU-93/42/EEC, CE and FDA approved	
6.	Delivery point		
6.1.	See hospital schedule	For Delivery, inspection and commissioning	
7.	Warranty and After Sales Service:		
	The Equipment including all accessories including bought out items should be under WARRANTY for a period of at least TWO YEARS after successful installation and commissioning.		
	Comprehensive maintenance contract rates for 5 YEARS after warranty must be quoted separately and these would be taken into consideration while comparing price bids.		
	All spare parts and consumables should be available with supplier or principals for a period of at least 10 years.		
	Should have local service facility. The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
8.	Other tender conditions		
	Suppliers should have been in the market for at least 3 years and should have a satisfied userbase for this equipment.		
	All Essential Spare parts / Consumables rates to be given separately which may be frozen during the equipment life.		
	Suppliers should have made a large number of installations, within the last five years, in the country in reputed institutions and preferably in Government Hospitals with a proven track record of excellent after sales support for this system.		
	List of references to be enclosed.		

LOT 8-3 Electrosurgical Units (with bipolar resection capability)

Item Code No.	Department	Section	Item Description
LOT 8-3	Operations Theatre	General Surgery	Electrosurgical Unit
1. General Description			

Item Code No.	Department	Section	Item Description
LOT 8-3	Operations Theatre	General Surgery	Electrosurgical Unit
High frequency electro surgical (diathermy) machine suitable for general surgery. The unit should be microprocessor based and capable of performing cutting, coagulation and blend functions at varying power output and complete with foot switch, electrodes and a cart (trolley).			
2. Composition			
2.1.	Main unit		
3. Performance Specifications			
3.1.	Main Unit		
3.1.1.	Output power	Nominal high frequency output of about 300W adjustable up and down with touch button keys or convenient controls. With automatic output regulation against excess impedance (TUR)	
3.1.2.	Cutting:	Monopolar, bipolar and blend functions	
		Activation by finger-switch and/or foot switch	
3.1.3.	Coagulation	Monopolar, bipolar, low forced and spray	
		Activation by finger switch and / or foot switch	
3.1.4.	Bipolar	Very low voltage	
3.1.5.	Wave form	Modulated pulse or Hemostatic or equivalent	
3.1.6.	Display	Digital Read out	
3.1.7.	Active patient electrode	Active patient electrode with standard electrode handle, with finger switch and connecting cable, reusable and autoclavable at 134°C	
3.1.8.	Patient plate	Patient (in different) plate, reusable rubber With connecting cable, autoclavable at 134°C	
3.1.9.	Foot Switch	Two pedal foot switch for cut and coagulation waterproof, explosion proof, cable length about 5 m.	
3.1.10.	Safety/ alarm devices		
	Dosage rate control	Audible and visual alarm	
	Leakage current	Audible and visual alarm	
	Patient plate split	Audible and visual alarm	
	Short circuit	Audible and visual alarm	
4.	Physical characteristics		

Item Code No.	Department	Section	Item Description
LOT 8-3	Operations Theatre	General Surgery	Electrosurgical Unit
4.1.	Main unit	Mounted on mobile cart	
5.	Operating environment		
5.1.	Power Requirements	240V, A/C 50 Hz, Single phase, 3 Pin Plug, 3m long cord with PE	
5.2.	Ambient temperature	10° C to 40° C	
5.3.	Relative humidity	20% to 90%	
6.	Accessories: To be provided as startup kits.		
6.1.	Standard urology specific electrode handle, with finger switch and connecting cable, reusable	3 Pcs (long electrodes for deep dissection)	
6.2.	Monopolar standard surgical electrode set consisting of stainless-steel container or plastic container complete with standard electrode set (blades, lancet, knives, needles, wire loops, balls and plates).	2 Sets (long electrodes for deep dissection)	
6.3.	Bipolar forceps with connecting cable, reusable	3 Pcs	
6.4.	Standard Urology specific assorted sizes of bipolar forceps, reusable	1 Set (long electrodes for deep dissection)	
6.5.	Patient (in different) plate, reusable rubber With connecting cable	4 Pcs (2 pieces Adult and 2 pieces Paediatrics)	
6.6.	Foot Switch-Monopolar	1 Pc	
6.7.	Foot Switch-Bipolar		
6.8.	Bipolar Cable	2 Pcs	

Item Code No.	Department	Section	Item Description		
LOT 8-3	Operations Theatre	General Surgery	Electrosurgical Unit		
6.9.	Active Patient Electrode	2 Set			
7.	Quality standards				
7.1.	Manufacturing standards	ISO 13485, ISO9001			
7.2.	Product conformity standards	EU-93/42/EEC, IEC 60601-1, EN 740 CE and FDA approved			
8.	Delivery point				
8.1.	See attached schedule on delivery				
9.	Installation and testing				
9.1.	Complete installation and set-up of the machine at the delivery sites as per the schedule				
10.	Training				
10.1.	User Training	On site user training on operation and daily upkeep			
10.2.	Maintenance training	Onsite maintenance training on preventive maintenance			
11.	Technical documentations				
11.1.	User manuals	2 Sets (Hard and Soft copy)			
11.2.	Service Manual	2 Sets (Hard and Soft copy)			
12.	Commissioning				
12.1.	Testing and commissioning of the machine as per the contract.				
13.	Warranty and After Sales Service:				
13.1.	The Equipment including all accessories including bought out items should be under WARRANTY for a period of at least TWO YEARS after successful installation and commissioning.				
13.2.	Comprehensive maintenance contract rates for 5 YEARS after warranty must be quoted separately and these would be taken into consideration while comparing price bids.				
13.3.	All spare parts and consumables should be available with supplier or principals for a period of at least 10 years.				
13.4.	Should have local service facility. The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.				

Item Code No.	Department	Section	Item Description
LOT 8-3	Operations Theatre	General Surgery	Electrosurgical Unit
14.	Other tender conditions		
14.1.	Suppliers should have been in the market for at least 3 years and should have a satisfied userbase for this equipment.		
14.2.	All Essential Spare parts / Consumables rates to be given separately which may be frozen during the equipment life.		
14.3.	Suppliers should have made a large number of installations, within the last five years, in the country in reputed institutions and preferably in Government Hospitals with a proven track record of excellent after sales support for this system.		
14.4.	List of references to be enclosed.		

LOT 8-4 Digital X-Ray Viewer

Item Code No.	Department	Section	Item Description
LOT 8-4	Operation Theatre	General Surgery	Digital X-Ray Viewer
1. General Description			
X-RAY-VIEW BOX (LED Light)			
2. Composition			
2.1.	Main unit		
3. Description of the medical supply unit design type			
A) Product & Manufacturer Quality Standards: 3.1. Should be FDA/ CE approved product. 3.2. Manufacturer and Supplier should have ISO 13485 certification for quality standards.			
B) TECHNICAL CHARACTERISTICS 3.3. Should be ultra-thin X ray film illuminator using LED light 3.4. It should have a thickness of 30 mm 3.5. It should be suitable for viewing 14''x17' film. 3.6. Should have position to insert 8 films in 2 rows. 3.7. The LED light must have a life span of more than 50,000 hours. 3.8. It should have easy insertion & removal of the film. 3.9. It should have homogeneous illumination more than 95% and maximum intensity of over 10,000 lux. 3.10. It should have an on-off switch along with digital feather touch dimmer and a button to set the intensity 3.11. It should have fully electronic continuous brightness control, with adjustment range of approximately 90%.			

Item Code No.	Department	Section	Item Description
LOT 8-4	Operation Theatre	General Surgery	Digital X-Ray Viewer
3.12. It should be directly connected to power supply without any external adapters. 3.13. It should have flicker free high frequency light for reduction of eye strain. 3.14. It should have external fuses for protection against power surge. 3.15. 10 step Digital dimmer facility with step up/step down intensity of 500 lux or less. 3.16. Should have automatic film sensor 3.17. Should have facility to switch on only the section where the film needs to be viewed. C) Power supply: 3.18. 240V, AC, 50Hz. Single phase			
Warranty and After Sales Service:			
The Equipment including all accessories including bought out items should be under WARRANTY for a period of at least TWO YEARS after successful installation and commissioning.			
Comprehensive maintenance contract rates for 5 YEARS after warranty must be quoted separately and these would be taken into consideration while comparing price bids.			
All spare parts and consumables should be available with supplier or principals for a period of at least 10 years.			
Should have local service facility. The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.			
Other tender conditions			
Suppliers should have been in the market for at least 3 years and should have a satisfied userbase for this equipment.			
All Essential Spare parts / Consumables rates to be given separately which may be frozen during the equipment life.			
Suppliers should have made a large number of installations, within the last five years, in the country in reputed institutions and preferably in Government Hospitals with a proven track record of excellent after sales support for this system.			
List of references to be enclosed.			

LOT 8-5 Laser Holmium yag (For lithotripsy) (LOT 15)

Commented [1]: urology surgeons to advice

Commented [K12R1]: Covered under LOT 15 Specialties Equipment

LOT 8-6 Laser Holmium yag 120 W (For lithotripsy) (LOT 15)

Commented [3]: urology surgeons to advice

Commented [K14R3]: Covered under LOT15 Specialties Equipment.

LOT 8-7 Fluid warmer

Item Code No.	Department	Section	Item Description
LOT 8-7	Operation Theatre	General Use	Blood/Fluid Warmers
1. General Description			
1.1. Delivers blood and intravenous fluid to the patient at norm thermic temperature at wide range of flow rates from gravity flow rates to 50-5,000 ml/hr.			
2. Composition			
2.1.	Main unit		
2.1.1. Should be able to warm fluid/blood to a temperature range of 37-40 degree C 2.1.2. Should be able to maintain or warm fluid/blood at a flow rate of 2.5 L/min 2.1.3. Should have a digital temperature display of fluid 2.1.4. Should have inbuilt water tank/ dry in line heating system to warm the infused fluid/blood 2.1.5. Should have a warm water column or heated sleeve up to the patient end to maintain the temperature up to the point of entry into the vein 2.1.6. Alarms for disconnections, less water and over temperature 2.1.7. At least 350 disposable tubing sets for fluid/blood along with each unit, the cost of which should be included in the financial bid 2.1.8. Should be useful for both in adult and Pediatric patients 2.2. Operational Requirements: 2.2.1. The Blood Warming and Infusion Set should be user friendly, safe to use 2.3. Standards, Safety and Training: 2.3.1. Should be FDA or CE approved product. 2.3.2. Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements. (or equivalent Standard) 2.3.3. Manufacturer/Supplier should have ISO certification for quality standards. 2.3.4. Certified for meeting IEC60601-2-24: Particular requirements for the safety of infusion pumps and controllers 2.3.5. Should meet IEC 529 Level 3 and 4 (IP3X)(spraying and splashing water) for enclosure protection, water ingress. 2.3.6. Electrical Safety Classification Class I/II, Type CF and Internally powered equipment. 2.4. Power Supply: 2.4.1. Power input to be 220-240VAC, 50Hz fitted with UK BS plug 2.5. Documentation: 2.5.1. User Manual and Service manual in English must be provided, both soft and hard copies. 2.6. Installation, Commissioning and Testing, 2.6.1. The equipment and all accessories should be transported, installed, tested and commissioned at EAKI project site. 2.7. Warranty and After Sales Service:			

Item Code No.	Department	Section	Item Description
LOT 8-7	Operation Theatre	General Use	Blood/Fluid Warmers
<p>2.7.1. The Equipment including all accessories including bought out items should be under WARRANTY for a period of at least TWO YEARS after successful commissioning.</p> <p>2.7.2. Comprehensive maintenance contract rates for 5 YEARS after warranty must be quoted separately and these would be taken into consideration while comparing price bids.</p> <p>2.7.3. All spare parts and consumables should be available with supplier or principals for a period of at least 10 years.</p> <p>2.7.4. Should have local service facility. The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.</p> <p>2.8. Other tender conditions</p> <p>2.8.1. Suppliers should have been in the market for at least 3 years and should have a satisfied userbase for this equipment.</p> <p>2.8.2. All Essential Spare parts / Consumables rates to be given separately which may be frozen for next 10 Years.</p> <p>2.8.3. Suppliers should have made a large number of installations, within the last five years, in the country in reputed institutions and preferably in Government Hospitals with a proven track record of excellent after sales support for this system.</p> <p>2.8.4. List of references to be enclosed.</p>			

LOT 8-8 Hush Slush System (For cooling and warming during transplant)

Item Code No.	Department	Section	Item Description
LOT 8-8	Operation Theatre	General Surgery	Hush Slush System (For cooling and warming during transplant)
1. General Description			
Hush Slush System (For cooling and warming during transplant Ecolab Hush Slush system or equivalent			
2. Composition			
2.1.	Main unit		
3. Specification Details			
<p>3.1. System with Slush basin with Auto stir</p> <p>3.2. Power and auto stir controls</p> <p>3.3. Disc-Drape Technology</p> <p>3.4. Quite Operation dur to its use in OR.</p>			

Item Code No.	Department	Section	Item Description
LOT 8-8	Operation Theatre	General Surgery	Hush Slush System (For cooling and warming during transplant)
Power: 220-240V AC Temperature range: -1 to 0Deg. C Med. Equip Class: Class I EMC Compliance: EN IEC 60601-1 Fluid Volume: 1000ml (min) to 4000ml(Max) Solution Warmer Power: 220-240V AC Normal Temperature reange: room Temperature to 49 Deg. C. Basin Temp. Set Point: 20 to 43±1Deg. C Med. Equipt. Class: Class I Fluid Volume: 1000ml (min) to 3000ml(Max) Power Cord: UK type 3 PIN 13 Amps.			

LOT 8-9 Table flash Autoclave

Item Code No.	Department	Section	Item Description
LOT 8-9	Operation Theatre	General Surgery	Table Flash Autoclave
4. General Description			
RAPID STERILIZER (FLASH AUTOCLAVE) TABLETOP STERILIZER WITH ACCESSORIES			
5. Composition			
5.1.	Main unit		
6. Specification Details			
6.1. Table-Top, Rapid, Front-Loading Autoclave <ul style="list-style-type: none"> Fully automatic microprocessor controls The control system should have Digital input/output controls, analog measuring inputs & COM ports for printer & PC connectivity, also with Alpha numeric Wide Graphic Display to indicate process status & to set the protocol with soft keypad. It should have Visual indicator provided by the same Wide Graphic Display to indicate process status. Accurate pressure control switch (1.2Kg/121 0C & 2Kg/1340C) Digital timer for Wet & Dry heat Alarm for completion of total command Auto drain out of water and condensation of steam, with external Wastewater tank Sterilization chamber made of strong deep drawn stainless steel S.S-304 			

Item Code No.	Department	Section	Item Description
LOT 8-9	Operation Theatre	General Surgery	Table Flash Autoclave
<ul style="list-style-type: none"> • Sheet to stand high Pressure <p>6.2. Should meet European Medical Device Directive 93/42EEC and Pressure Equipment directive 97/23EEC</p> <p>6.3. Should be CE/FDA Approved</p> <p>6.4.</p>			

LOT 8-10 Patient Trolleys

Item Code No.	Department	Section	Item Description
LOT 8-10	Operations Theatre	General Surgery	Patient Trolley
1. General Description			
General purpose trolley constructed from epoxy coated mild steel frame, with side rails. The Unit should be mobile on four castors , all lockable			
2. Composition			
2.1.	Main unit,		
3. Performance Specifications			
3.1.	Main Unit	Mobile type	
3.1.1.	Material	Epoxy coated mild steel	
	Shelves	Two stainless Steel shelves with three guard rails on each	
3.1.2.	Top	Stainless steel tray with three guard rails	
3.1.3.	Castors	Provided, heavy duty, 2 with brakes	
3.1.4.	Push/Pull handle	Provided	
4.	Quality standards		
4.1.	Manufacturing standards	ISO 9001	
4.2.	Conformity to standards	CE approved	
5.	Delivery point		
5.1.	See Schedule	For inspection, installation and testing	
5.2.	Nil		

LOT 8-11 Patient monitor

Item Code No.	Department	Section	Item Description		
LOT 8-11	Operation Theatre	Theatre Recovery and Common Use	Patient Monitor		
1. General Description					
Portable Bedside monitor suitable for use in ICU. Should be capable of continuous measuring/monitoring of the following parameters in adults, neonatal and pediatric. <ul style="list-style-type: none">● SpO₂● Temperature● Blood pressure● ECG● Respiration● CO₂● Pulse Rate					
2. Composition					
2.1.	Main unit				
3. Performance Specifications					
3.1. Main Unit					
Portable Bed side monitors					
Type	Roll stand Mounted type, complete with internal rechargeable battery				
Application	Can be used as a both bedside monitor and a transport monitor				
Parameter & waveforms	SpO ₂ , Pulse rate, ECG, NIBP, IBP, Respiration, CO ₂ and temperature				
SpO ₂ , with reusable sensor	0 - 100% ± 3%				
Pulse Rate	30-300 bpm ± 1%				
Temperature	0-50 ⁰ C ± 0.1%				
NIBP	Mean 10- 300mmHg ± 5 mmHg				
IBP X2	Mean 00 – 300mm Hg ± 1 mmHg				
ECG	5 lead, standard configuration				
CO ₂	0 to 99 mmHg ± 4 mmHg				
Display	Minimum 12.0 inches color touch screen/scroll type				
	6 to 8 waveforms with large font				
Networking	Wireless and wired connection to the central workstation				

Item Code No.	Department	Section	Item Description
LOT 8-11	Operation Theatre	Theatre Recovery and Common Use	Patient Monitor
Storage	Capable of storing patient data and transferring to the central workstation for viewing or printing.		
Audio and visual alarm Printer	For all parameter. Inbuilt Thermal Printer		
Alarm setting limits	Adjustable by user		
Low battery indicator	Audio and visual alarm		
Power Requirement	Rechargeable internal battery, that can last at least 3 hours when fully charged		
Wireless networking	Latest technology.		
4.	Accessories	The following accessories will be provided as startup kits.	
4.1.	ECG connection lead and reusable electrodes	2 Set	
4.2.	SpO ₂ connection cable and sensor (finger probe), reusable	2 Sets	
4.3.	Adult cuff	3 Sets	
4.4.	Pediatric cuff	2 Sets	
	Temperature connection cable and probe (reusable)	2 Sets	
4.5.	Recording paper	20 Boxes	
5.	Quality standards		
5.1.	Manufacturing standards	IEC 60601-1, ISO 9001, ISO 13485	
5.2.	Conformity to standards	Directive 2004 / 108 / EC, CE and FDA marked	
6.	Local back up service		
6.1.	Available	Should be available locally	
6.2.	Capacity to service equipment	Agent shall have adequate facilities, spare parts, consumables and qualified and skilled technical staff	
7.	Delivery point		
7.1.	See Schedule	For inspection and testing	
7.2.	Nil		

Item Code No.	Department	Section	Item Description		
LOT 8-11	Operation Theatre	Theatre Recovery and Common Use	Patient Monitor		
8.	Pre installation requirements				
	Nil				
9.	Installation and testing				
	Complete installation and setup of the machine as per manufacturer’s instructions				
10.	Training				
10.1.	User Training	On site user training on operation and daily up keep			
10.2.	Maintenance training	Onsite maintenance training on preventive maintenance			
11.	Technical documentations				
11.1.	User manuals	2 Sets			
11.2.	Service Manual	1 Set			
11.3.	Drawings	Nil			
12.	Commissioning				
12.1.	Testing and commissioning of the machine to the satisfaction of the user.				
13.	Warranty				
13.1.	Equipment	Minimum of one year after commissioning on all parts.			
13.2.	Equipment System	Nil			

LOT 8-12 Transport Patient Monitors

Item Code No.	Department	Section	Item Description
LOT 8-12	Operation Theatre	Theatre Recovery and (Common Use)	Transport Patient Monitor
1. General Description			
<p>Portable Bedside monitor suitable for use in ICU. Should be capable of continuous measuring/ monitoring of the following parameters in adults, neonatal and pediatric.</p> <ul style="list-style-type: none"> • SpO₂ • Temperature • Blood pressure 			

Item Code No.	Department	Section	Item Description		
LOT 8-12	Operation Theatre	Theatre Recovery and (Common Use)	Transport Patient Monitor		
<ul style="list-style-type: none">● ECG● Respiration● CO₂● Pulse Rate					
2. Composition					
2.1.	Main unit				
3. Performance Specifications					
3.1. Main Unit					
Portable Bed side monitors					
Type		Roll stand Mounted type, complete with internal rechargeable battery			
Application		Can be used as a both bedside monitor and a transport monitor			
Parameter & waveforms		SpO2, Pulse rate, ECG, NIBP, IBP, Respiration, CO2 and temperature			
SpO ₂ , with reusable sensor		0 - 100% ± 3%			
Pulse Rate		30-300 bpm ± 1%			
Temperature		0-50 ⁰ C ± 0.1%			
NIBP		Mean 10- 300mmHg ± 5 mmHg			
IBP X2		Mean 00 – 300mm Hg ± 1 mmHg			
ECG		5 lead, standard configuration			
CO ₂		0 to 99 mmHg ± 4 mmHg			
Display		Minimum 12.0 inches color touch screen/scroll type			
		6 to 8 waveforms with large font			
Networking		Wireless and wired connection to the central work station			
Storage		Capable of storing patient data and transferring to the central workstation for viewing or printing.			
Audio and visual alarm		For all parameter.			
Printer		Inbuilt Thermal Printer			
Alarm setting limits		Adjustable by user			

Item Code No.	Department	Section	Item Description
LOT 8-12	Operation Theatre	Theatre Recovery and (Common Use)	Transport Patient Monitor
Low battery indicator		Audio and visual alarm	
Power Requirement		Rechargeable internal battery, that can last at least 3 hours when fully charged	
Wireless networking		Latest technology.	
4.	Accessories	The following accessories will be provided as startup kits.	
4.1.	ECG connection lead and reusable electrodes	2 Set	
4.2.	SpO ₂ connection cable and sensor (finger probe), reusable	2 Sets	
4.3.	Adult cuff	3 Sets	
4.4.	Pediatric cuff	2 Sets	
	Temperature connection cable and probe (reusable)	2 Sets	
4.5.	Recording paper	20 Boxes	
5.	Quality standards		
5.1.	Manufacturing standards	IEC 60601-1, ISO 9001, ISO 13485	
5.2.	Conformity to standards	Directive 2004 / 108 / EC, CE and FDA marked	
6.	Local back up service		
6.1.	Available	Should be available locally	
6.2.	Capacity to service equipment	Agent shall have adequate facilities, spare parts, consumables and qualified and skilled technical staff	
7.	Delivery point		
7.1.	See Schedule	For inspection and testing	
7.2.	Nil		
8.	Pre installation requirements		

Item Code No.	Department	Section	Item Description		
LOT 8-12	Operation Theatre	Theatre Recovery and (Common Use)	Transport Patient Monitor		
	Nil				
9.	Installation and testing				
	Complete installation and setup of the machine as per manufacturer's instructions				
10.	Training				
10.1.	User Training	On site user training on operation and daily up keep			
10.2.	Maintenance training	Onsite maintenance training on preventive maintenance			
11.	Technical documentations				
11.1.	User manuals	2 Sets			
11.2.	Service Manual	1 Set			
11.3.	Drawings	Nil			
12.	Commissioning				
12.1.	Testing and commissioning of the machine to the satisfaction of the user.				
13.	Warranty				
13.1.	Equipment	Minimum of one year after commissioning on all parts.			
13.2.	Equipment System	Nil			

LOT 8-13 Refrigerators

Item Code No.	Department	Section	Item Description		
LOT 8-13	Operation Theatre	Theatre Recovery and (Common Use)	Non frost Refrigerator, Food		
1. General Description					
1.1. Refrigerator, food.					
2. Composition					
2.1.	Main unit				
3. Performance Specifications					

Item Code No.	Department	Section	Item Description
LOT 8-13	Operation Theatre	Theatre Recovery and (Common Use)	Non frost Refrigerator, Food
3.1.	Main Unit		
3.1.1.	Material	Insulated galvanized steel	
3.1.2.	Type	Compressor, electrical	
3.1.3.	Door	Two door, freezer and lower compartment	
3.1.4.	Total net capacity	350 litres	
3.1.5.	Temperatures range	-4°C to + 10°C adjustable	
3.1.6.	Ambient temperature	10 ° C to 35°C	
3.1.7.	Shelves	Provided, adjustable and extractable	
3.1.8.	Thermometer	Digital, external mounted, with temperature record history	
3.1.9.	Control	Electronic, Microprocessor based	
3.1.10.	Refrigerant	CFC free	
3.1.11.	Alarm	Provided, audible and visible	
3.1.12.	Dimensions		
3.1.13.	Power	240V, 50 Hz, a.c	
4.	Accessories		
4.1.	Nil		
5.	Quality standards		
5.1.	Manufacturing standards	ISO 9001, ISO 14001	
5.2.	Conformity to standards	CE marked.	
6.	Delivery point		
6.1.	See Schedule	For inspection and testing	
6.2.	Nil		
7.	Warranty		
7.1.	Equipment	Minimum of one year after commissioning on all parts.	

Item Code No.	Department	Section	Item Description		
LOT 8-13	Operation Theatre	Theatre Recovery and (Common Use)	Non frost Refrigerator, Food		
7.2.	Equipment System	Nil			
8.	Accessories				
8.1.	Automatic Voltage Regulator (AVR)				
8.1.1.	Capacity	Over VA of the main Unit			
8.1.2.	Input	Ac 240V, 50Hz, Single phase $\pm 15\%$			
8.1.3.	Output	Ac 240V, 50Hz, Single Phase $\pm 2.5 \%$			

LOT 8-14 Instrument Trolleys

Item Code No.	Department	Section	Item Description	
Lot 8-14	Main Theatre	Operating theatres	Instrument Trolley	
1. General Description				
Standard Instrument trolley individually packaged and cleared marked in English with the name and characteristics of the article and number of units per carton and with Manufacturer's Name and Origin, Batch No, Date of Manufacture.				
● Submission of sample:				
Submit a brochure for evaluation				
2. Composition				
2.1.	Main Kit			
3.	Description of instrument		Quantity	
	3.1. General Description			
	For transporting instruments in the hospital. All stainless steel, tubular frame, robust constructed, with two stainless steel shelves and guard rail on three sides of the top shelve, with four castors, 2 lockable.			
	3.2. Composition			
	3.3. 2.1	Main unit		
	3. Performance Specifications			
	3.4. 3.1	Main Unit		
	3.1.1	Material		All stainless steel
	3.1.2	Top		Stainless steel with guard rails
		Shelve		1 No. Stainless steel
		Antistatic Castors		Approx. 100mm, 2 with lockable brakes
	3.1.3	Dimensions		Approximately L 700 x W 460 x H 860 mm.
	4.	Accessories		
	4.1. 4.1	Nil		
	5.	Quality standards		
	5.1. 5.1	Manufacturing standards		ISO 9001, ISO 13485

Item Code No.	Department	Section	Item Description
Lot 8-14	Main Theatre	Operating theatres	Instrument Trolley
	5.2. 5.2	Conformity to standards	CE and FDA marked
	6.	Delivery point	See Schedule
7.	Quality standards		
7.1.	Manufacturing standards		IEC 60601-1, ISO 9001, ISO 13485
7.2.	Conformity to standards		CE and FDA marked
8.	Delivery point		See schedule

LOT 8-15 Resuscitaire

Item Code No.	Department	Section	Item Description
LOT 8-15	Operation Theatre	Theatre Recovery and (Common Use)	Resuscitaire
1. General Description			
<p>Standard Resuscitaire individually packaged and cleared marked in English with the name and characteristics of the article and number of units per carton and with Manufacturer's Name and Origin, Batch No, Date of Manufacture.</p> <p>● Submission of sample: Submit a brochure for evaluation</p>			
2. Composition			
2.1. General Description			
<p>Standard Resuscitaire individually packaged and cleared marked in English with the name and characteristics of the article and number of units per carton and with Manufacturer's Name and Origin, Batch No, Date of Manufacture.</p>			

Item Code No.	Department	Section	Item Description
LOT 8-15	Operation Theatre	Theatre Recovery and (Common Use)	Resuscitaire
● Submission of sample: Submit a brochure for evaluation			
3. Composition			
3.1.	Main Kit		
4.	Description of instrument Description of instrument: A mobile infant warming resuscitation unit with integral bassinet having the following features:- <ul style="list-style-type: none"> ● Readily Mobile, Height adjustable Stand with Caster Breaks ● Multi-position, Overhead Radiant Heater and Examination Light ● Unit equipped with both overhead and base heaters under gel mattress ● Clear Heater Control Indicator. Temperature control Range 35°C to 37°C with Clear Skin Temperature Indicator. ● Audible and Visual Alarms for Sensor disconnect and Power failure ● Equipped with weighing scale ● Apgar Timer ● O₂ and Air pipeline connections. ● O₂ and Air Cylinder yokes ● O₂ / Air Blender ● Inbuilt auto breath system ● O₂ Flow meter 0 to 15 LPM ● Pipeline and Venturi Neonatal Suction ● Airway Pressure limiting system 0 to 50 cm H₂O ● Resuscitation Storage compartment and drawers. ● Wide mattress/patient area with dropdown or removable sides and good access on three sides. ● Rails or handles to facilitate easy movement. ● Free Clinical Staff training as required. ● Free second-line technical training for the biomedical team. ● User and technical maintenance manuals and technical support. List of frequently used/ replaceable consumables, their availability and cost.		
5.	Quality standards		
5.1.	Manufacturing standards	IEC 60601-1, ISO 9001, ISO 13485	
5.2.	Conformity to standards	CE and FDA marked	

Item Code No.	Department	Section	Item Description
LOT 8-15	Operation Theatre	Theatre Recovery and (Common Use)	Resuscitaire
6.	Delivery point	See schedule	

LOT 8-16 Defibrillator

Item Code No.	Department	Section	Item Description
LOT 8-16	Operations Theatre	Theatre Recovery and (Common Use)	Defibrillator
1. General Description			
Defibrillator suitable for cardiac care complete with ECG monitoring, SPO ₂ monitoring and NIBP			
2. Composition			
2.1.	Main unit		
3. Performance Specifications			

Item Code No.	Department	Section	Item Description
LOT 8-16	Operations Theatre	Theatre Recovery and (Common Use)	Defibrillator
3.1.	The defibrillator should have biphasic technology having energy selection of maximum 200 joules.		
3.2.	The machine should have facility for ECG monitoring, defibrillation, external pacing ,synch & recorder.		
3.3.	Machine should have more than 8” TFT Screen.		
3.4.	Machine must be with sweep rate 25mm/sec, 50mm/sec.		
3.5.	Machine should have 72hour trend storage facility.		
3.6.	Should have 5 leads and capable of monitoring 12 lead configuration ECG through ECG Cables, electrodes & paddles.		
3.7.	The machine should have defibrillation facility for adult & pediatric patients.		
3.8.	The machine should have ECG waveform display on bright screen along with other vital numeric information.		
3.9.	The machine should be compact, portable with built in rechargeable battery & light weight.		
3.10.	The machine should have inbuilt auto & manual recorder for printing ECG trace & stored information.		
3.11.	The machine should have user selectable alarm setting.		
3.12.	The machine should work on mains (without battery) and on battery as well.		
3.13.	The machine should have AED feature as inbuilt with manual override for manual operations.		
3.14.	Machine must be with carry bag & Accessory bag.		
3.15.	The machine must be supplied with all the essential accessories in 2 set & moveable trolley.		
3.16.	The Defibrillator should have an ECG display and a three lead ECG cable.		
3.17.	The Defibrillator should have SPO2 and must have Non Invasive Pacing.		
4.	Physical characteristics		
4.1.	Main unit	Portable	
4.2.			
4.3.	Dimensions		
5.	Operating environment		
5.1.	Power Requirements	240V, A/c 50 Hz, Single phase, 3 Pin Plug (BS), 3m long cord with PE	
5.2.	Back up supply	Internal rechargeable batteries (SLA), to last at least five hours	

Item Code No.	Department	Section	Item Description
LOT 8-16	Operations Theatre	Theatre Recovery and (Common Use)	Defibrillator
5.3.	Ambient temperature	10° C to 40° C	
5.4.	Relative humidity	20% to 90%	
6.	Consumables		
6.1.	Start-up Kits must be provided including ECG electrode, Gel and Recording paper		
7.	Quality standards		
7.1.	Manufacturing standards	IEC 60601-1, ISO 9001, ISO 13485	
7.2.	Conformity to standards	CE and FDA marked	
8.	Local back up service		
8.1.	Available	Should be available locally	
8.2.	Capacity to service equipment	Agent shall have adequate facilities, spare parts, and qualified and skilled technical staff	
9.	Delivery point		
9.1.	See Schedule	For inspection and testing	
9.2.	Nil		
10.	Pre installation requirements		
	Nil		
11.	Installation and testing		
	Complete installation and setup of the machine as per manufacturer's instructions		
12.	Training		
12.1.	User Training	On site user training on operation and daily upkeep	
12.2.	Maintenance training	Onsite maintenance training on preventive maintenance	
13.	Technical documentations		

Item Code No.	Department	Section	Item Description		
LOT 8-16	Operations Theatre	Theatre Recovery and (Common Use)	Defibrillator		
13.1.	User manuals	2 Sets			
13.2.	Service Manual	2 Set			
13.3.	Drawings	Nil			
14.	Commissioning				
14.1.	Testing and commissioning of the machine to the satisfaction of the user.				
15.	Warranty				
15.1.	Equipment	Minimum of one year after commissioning on all parts.			
15.2.	Equipment System	Nil			

LOT 8-17 Gas Plasma sterilizer

Item Code No.	Department	Section	Item Description		
LOT 8-17	CSSD	Sterilization Area	Gas Plasma Sterilizer		
1. General Description					
Low Temperature based H2O2 Gas plasma sterilizer,					
2. Composition					
2.1.	Main unit				
3. Description of the medical supply unit design type					
3.1.	Should provide simple & fast sterilization of surgical instruments at low temperature using H2O2 Gas Plasma technology for effective removal of H2O2 from sterilized items and to compliment the process.				
3.2.	Should be suitable for sterilization of medical items like rigid endoscopes, lumen & non lumen, metal , non-metal, heat & moisture sensitive instruments				
3.3.	Chamber should have usable volume of around 50 liters				
3.4.	The sterilization temperature inside the chamber should be less than 55°C				
3.5.	Cycle time should be 35 to 60 mins				
3.6.	The sterilant should be in a cassette/ bottle with H2O2 concentration more than 55%				
3.7.	Should be endorsed by leading instruments and scopes makers like Karl Storz, Olympus, Stryker, Medtronic and Johnson & Johnson				
3.8.	The system should use minimum quantity of sterilant which should be less than 6-8 ml per injection to deliver dry terminal sterilization to ensure safety of Instruments against corrosion.				

Item Code No.	Department	Section	Item Description
LOT 8-17	CSSD	Sterilization Area	Gas Plasma Sterilizer
3.9. The unit should be equipped with all the safety features 3.10. Sterilizer should have storage of cycle records data. 3.11. Should be environment friendly and have no toxic products or harmful residues in the sterilized items in the chamber. 3.12. Sterilizer should be approved by USFDA and CE 3.13. Please specify list and cost of consumables/ consumable spares (i.e spares need to be replaced at regular intervals, may be quarterly/half yearly/ yearly such as annual maintenance kit etc.) if any. 3.14. Please specify pre installation requirements (electrical, HVAC etc.) 3.15. Please specify footprint size & its weight. 3.16. Demo of the quoted model will be mandatory at the cost of bidder if so desired by the user, after the opening of the technical bid and prior to opening of financial bid. This is for technical evaluation.			

LOT 8-18 Syringe Pumps

Item Code No.	Department	Section	Item Description
LOT 8-18	Operation Theatre	Theatre Recovery and (Common Use)	Syringe Pump
1. General Description			
Syringe pump			
2. Composition			
2.1.	Main unit		
3. Performance Specifications			
3.1. Main Unit			
3.1.1. Should be easy to use and nurse friendly.			
3.1.2. Should have automatic syringe size and model detection			
3.1.3. System should be front loading			
3.1.4. Should have large format LCD/TFT display.			
3.1.5. Should have a minimum flow rate range from 0.1 – 1200 ml/hr. for 50ml syringe, 0.1 – 100 ml/hr. for 20ml syringe and 0.1 – 60 ml/hr. for 10ml syringe.			
3.1.6. Syringe range from 20-50/60 ml.			
3.1.7. Should have a flow rate accuracy of $\pm 2\%$			
3.1.8. Should have a bolus rate up to 1000ml/hr. for 50 ml syringe.			
3.1.9. Should have automatic and manual bolus.			
3.1.10. Should have at least 3 levels of programmable occlusion pressure.			

Item Code No.	Department	Section	Item Description
LOT 8-18	Operation Theatre	Theatre Recovery and (Common Use)	Syringe Pump
3.1.11. Should have automatic bolus reduction system to avoid accidental bolus delivery after occlusion incident. 3.1.12. Should have a rechargeable battery with back up time of minimum 3 hours. 3.1.13. System should have a docking station 3.1.14. Pump must trigger following alarms with visual indication:- i. Occlusion Pressure Alarm ii. KVO or 3 min pre- alarm iii. Syringe empty and volume infused alarm iv. Internal malfunction and Battery Charge Low Alarm v. Syringe disengaged and incorrectly placed alarm vi. Alarm loudness control. vii. No mains viii. Line disconnected (rapid pressure drop). 3.1.15. Should work with input 200 to 240Vac 50 Hz supply. 3.1.16. Should be CE and FDA marked. 3.1.17. Copy of the certificate / test report shall be produced along with the technical bid			

LOT 8-19 Infusion Pumps

Item Code No.	Department	Section	Item Description
LOT 8-19	Operation Theatre	Theatre Recovery and (Common Use)	Infusion Pump
1. General Description			
1.1. Infusion pump			
2. Composition			
2.1.	Main unit		
3. Performance Specifications			
3.1. Main Unit			
3.1.1. Should be operated on drip rate Peristaltic finger pump method.			
3.1.2. Should be compatible with most of the IV set (macro/micro drip sets).			
3.1.3. Should have the following flow rates.			
3.1.4. IV Set ml/hr. drops/min			
- 15 drops/ml 3~450ml/hr. 1~100drops/min			
- 20 drops/ml 3~450ml/hr. 1~100drops/min			

Item Code No.	Department	Section	Item Description
LOT 8-19	Operation Theatre	Theatre Recovery and (Common Use)	Infusion Pump
- 60 drops/ml 1~100ml/hr. 1~100drops/min 3.1.5. Should have a flow rate accuracy of $\pm 10\%$ and drip rate accuracy of $\pm 2\%$. 3.1.6. Should have a volume infused display from 0 to 999.9ml. 3.1.7. Should have a purge and KVO facility. 3.1.8. Should have an audible and visual alarm for occlusion pressure, air alarm, door open, empty, low battery. 3.1.9. Should have a LCD display with backlight and graphical display of infusion. 3.1.10. Should have a minimum 2hr battery back up at highest delivery rate. 3.1.11. Should work with input 240Vac 50 Hz supply. 3.1.12. Should be CE and FDA marked 3.1.13. Copy of the certificate / test report shall be produced along with the technical			

LOT 8-20 Operation Microscope (Transplant Procedures)

Item Code No.	Department	Section	Item Description
LOT 8-20	Operation Theatre	General Surgery	Operation Microscope
1. General Description			
1.1. SPECIFICATIONS FOR OPERATING MICROSCOPE			
2. Composition			
2.1.	Main unit		
3. Detailed Specifications			
3.1. CLASSIFICATION: CLASS 1 3.2. MAGNIFICATION: 6:1 motorized zoom activated through hand control ,foot switch control panel 3.3. WORKING DISTANCE :motorized focus +manual override 3.4. FOCUSING: min 224 or less – max 470 mm or more. 3.5. EYE PIECE : wide field eye piece for eyeglass wearers dioptr setting -5 d or less to + 5 d or more with adjustable eyecup interpupillar distance 55-75 mm 3.6. OBJECTIVE : multifocal length min 224 or less max 470 mm or more motorized focus with manual over ride 3.7. MAIN ILLUMINATION :should be 300 w xenon arc – indirect type illumination with stand by xenon with changeover facility 3.8. FIELD DIAMETER :17-143 mm /10 x eyepiece 3.9. MAGNIFICATION RANGE: 1.5-1.2 x or more /10 x eyepiece. 3.10. CONTROL UNIT: graphic LED/LCD display having facility for adjusting speed of zoom and focus.			

Item Code No.	Department	Section	Item Description
LOT 8-20	Operation Theatre	General Surgery	Operation Microscope
<p>3.11. TYPE /STAND SYSTEM : floor stand with electromagnetic brakes modular/ integrated (compact design) configuration for each application</p> <p>3.12. HAND GRIPS: controls for zoom focusing, recording, light intensity, adjustment, joy stick control preferable for finer adjustments of the microscope.</p> <p>3.13. A sepsis for all controls: sterilize/disposable protective glass encasement for objective sterilization components for all drive knobs /drapes.</p> <p>3.14. OBSERVER: coordinated stereo co observation .stereo –co observation system for cranial procedures with additional observer unit at 180° for final procedures</p> <p>3.15. CONFORMITY: should comply with CE/FDA standard to assure quality and safety of the system.</p> <p>3.16. ACCESSORIES : should have camera with integrated HD recording system –DVD digital recording system ,DVD burning ,USB storage device ,video format dvi, DICOM COMPATIBILITY, FIRE WIRE INPUT/OUTPUT, video compression MPEG 4 still image JPEG/ TIFF/ BMPO/ GIFF</p> <p>3.17. POWER SUPPLY : 220-240 vac +/- 10% 50 Hz</p> <p>3.18. FEATURES : automated illumination brightness ,auto zoom synchronized illumination</p> <p>3.19. VASCULAR FLUORESCENCE: should have vascular fluorescence (ICG). Rate to be quoted separately and the rate offered will be taken for evaluation</p> <p>3.20. should be upgradable to :</p> <p>3.20.1. Neuro-navigation compatibility. The details of additional hardware required for up gradation shall be provided with technical bid. Rate to be quoted separately. The rate offered will not be taken for evaluation</p> <p>3.20.2. Image injection facility and tumour fluorescence if available shall be quoted separately. This rate will not be taken for evaluation</p> <p>3.21. Shall supply 32" or above LCD/LED monitor.</p>			

LOT 8-21 Endoscopy Tower

Item Code No.	Department	Section	Item Description
LOT 8-21	Operation Theatre	General Surgery	Endoscopy Tower
1. General Description			
1.1. UPPER GI ENDOSCOPE, COLONOSCOPE, DUODENOSCOPY			
2. Composition			
3.	Main unit		
3.1. Product Quality Standards:			
3.1.1. Should be USFDA and CE (Notified) approved model.			
3.1.2. Manufacturer should be ISO 13485 certified for quality standards.			

Item Code No.	Department	Section	Item Description
LOT 8-21	Operation Theatre	General Surgery	Endoscopy Tower
<p>3.1.3. Shall comply with EN/IEC 60601, Particular requirements for electrical safety of the device.</p> <p>4. Technical Specification:</p> <p>4.1. Video Processor, Light source & Monitor:</p> <p>4.1.1. Should be fully digital system.</p> <p>4.1.2. Should have high illumination xenon (100W to 300W) light source or equivalent LED technology.</p> <p>4.1.3. Brightness control: Auto/Manual</p> <p>4.1.4. Should have colour correction facility.</p> <p>4.1.5. Should have colour enhancement facility.</p> <p>4.1.6. Convenient digital to digital recording of both still and moving images.</p> <p>4.1.7. Picture and picture display for any combination of endoscopic images.</p> <p>4.1.8. Convenient index display for documentation.</p> <p>4.1.9. Scope ID function for endoscopy suite management.</p> <p>4.1.10. Analog output: RGB, Y/C & Composite.</p> <p>4.1.11. Digital Output: HD-SDI, DVI</p> <p>4.1.12. Should be provided with high resolution medical grade monitor of minimum 21-inch size diagonally.</p> <p>4.1.13. Should have video storing facility in inbuilt or external memory.</p> <p>4.2. Video Gastroscope for both Diagnostic & therapeutic purpose:</p> <p>4.2.1. Should be capable of high-resolution imaging.</p> <p>4.2.2. Should be provided with water irrigation system with complete accessories.</p> <ul style="list-style-type: none"> ● Field of view: 140 degrees or more ● Depth of field: 2-100mm ● Forward viewing facility ● Total length: 1340 to 1365mm ● Working length more than 1000mm ● Insertion tube outer diameter 9.8mm ● Distal end diameter 9.8 to 10.3mm ● Bending section tip deflection Up – 210 degrees, Down – 90 to 120 degrees Left - 100 to 120 degrees Right – 100 to 120degrees ● Instrument channel - Diameter – 2.8 to 3mm <p>4.3. Video Colonoscope:</p> <p>4.3.1. Should be capable of high-resolution imaging.</p> <p>4.3.2. Should be provided with water irrigation system with complete accessories.</p> <ul style="list-style-type: none"> ● Field of view- 140 degrees or more ● Depth of field: 2-100mm ● Forward viewing facility ● Total length - 1600 to 2000mm ● Working length more than 1300 to 1700mm 			

Item Code No.	Department	Section	Item Description
LOT 8-21	Operation Theatre	General Surgery	Endoscopy Tower
<ul style="list-style-type: none"> • Insertion tube outer diameter 12 mm or more • Bending section tip deflection <ul style="list-style-type: none"> Up – 180 degrees, Down – 180 degrees Left - 160 degrees Right – 160 degree • Instrument channel - Diameter – 3.8mm or more <p>4.4. Video Duodenoscope:</p> <p>4.4.1. Should be capable of high-resolution imaging.</p> <p>4.4.2. Should be provided with water & suction irrigation system with complete accessories.</p> <ul style="list-style-type: none"> • Field of view- 100 degrees or more • Depth of field: 5-60mm • Direction of view: Side Viewing (Retro 5 to 10 degrees) • Total length - 1500 to 1600mm • Working length more than 1230 mm • Insertion tube outer diameter 11.5 to 12.5 • Bending section tip deflection <ul style="list-style-type: none"> Up – 120 degrees, Down – 90 degrees Left - 90 degrees Right – 100 to 110 degrees • Instrument channel - Diameter – 4 mm or more <p>4.5. Endoscope Washing/Reprocessing Station:</p> <p>4.5.1. The Endoscopic Washing/reprocessing station should be able to reprocess two scopes simultaneously.</p> <p>4.5.2. The Endoscopic washing Machine should be able to perform ultrasound cleaning and high-pressure cleaning to remove debris from the endoscope.</p> <p>4.5.3. The Endoscopic Washing Machine should have different sensors that include :</p> <ul style="list-style-type: none"> Pressure Sensor Disinfectant Level Sensor Leak Detect Sensor <p>4.5.4. It should be compatible with all kinds of flexible endoscopes.</p> <p>4.5.5. It should have different time settings for various steps during disinfection such as cleaning, disinfection, drying etc.</p> <p>4.5.6. It should be compatible with most types of disinfectants available commercially e.g. Gluteraldehyde, Paracetic acid etc</p> <p>4.6. Accessories to supply:</p> <p>NOTE: Each accessory should be from reputed make having USFDA & CE certification</p> <p>4.6.1. Compatible biopsy forcep-5nos.</p>			

Item Code No.	Department	Section	Item Description
LOT 8-21	Operation Theatre	General Surgery	Endoscopy Tower
<p>4.6.2. Endoscopic CVT basket-5nos.</p> <p>4.6.3. Endoscopic Lithotripter-5nos.</p> <p>4.6.4. Endoscopic Sphincterotomes-5nos.</p> <p>4.6.5. CBD Ballon-5nos.</p> <p>4.6.6. Guide wire -5nos.</p> <p>4.6.7. Stent Pusher-5nos.</p> <p>4.6.8. Cleaning brush: 1no.</p> <p>4.6.9. Rubber inlet seal: 1no.</p> <p>4.6.10. Silicone oil-1 jar</p> <p>4.6.11. Soaking cap-1no.</p> <p>4.6.12. Cleaning adapter-1no.</p> <p>4.6.13. Leakage tester-1no.</p> <p>4.6.14. Computer system, at least (Core i7, 16GB RAM, 1TB HDD) with 17 inch monitor & laser colour printer and compatible image transfer and reporting software.</p> <p>4.6.15. Endoscope trolley (S.S 304 grade) to carry all the required equipment with castor wheel having front locking facility.</p> <p>4.7. Power supply:</p> <p>4.7.1. Power input to be 220 – 240V AC, 50Hz fitted with B.S. plug of appropriate rating.</p> <p>4.8. Warranty:</p> <p>4.8.1. Should have at least 2yrs. of manufacturer warranty including all the flexible scopes mentioned above.</p> <p>4.9. Environmental Factors:</p> <p>4.9.1. Operating condition: The unit shall be capable of operating in ambient temperature of 10-40 deg C and relative humidity of 15-90%</p> <p>4.9.2. Storage: The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%</p> <p>4.10. Training:</p> <p>4.10.1. Operational as well as general troubleshooting/ User level maintenance training should be given to the user during supply & as when required by the user.</p>			

LOT 8-22 Complete Laparoscopic towers with 4K image quality (Either on pendant or trolley)

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
1. General Description			
2. Composition			
a)	Main unit		
1.1 Arthroscopy Tower A complete arthroscopic tower with the following items: <ul style="list-style-type: none"> i. Camera box endoscopic camera system -1 ii. Camera head -1 iii. Light source, LED -1 iv. Light guide cable - 1 v. Surgical monitor, UHD 4K, 32 inches - 1 vi. 30° arthroscope, 4mm - 2 vii. 30° arthroscope 2.7mm - 1 viii. 70° arthroscope 4mm - 1 ix. 70° arthroscope 0.27mm - 1 x. Sheath/cannula for 4mm scope with inflow/out flow - 2 xi. Sheath/cannula for 2.7mm scope with inflow/out flow -2 xii. Conical obturator/trocar compatible with Inflow/outflow sheaths -1 for 4mm and 1 for 2.7mm xiii. Shaver/resection system/consol -1 xiv. Shaver hand pieces - 2 xv. Arthroscopy pump -1 xvi. Arthroscopic RF system -1 xvii. A video cart to accommodate the camera box, light source shaver system, RF system and arthroscopy pump - 1 xviii. All Items must be compatible with one another xix. Backup Power UPS: <ul style="list-style-type: none"> ● Input -220-240V (ac) 50/60Hz ● Output- 220-240V (ac) 2500VA xx. Manuals <ul style="list-style-type: none"> a. User manuals (both hard and soft copy) b. Technical manual (both hard and soft copy) xxi. Installation <ul style="list-style-type: none"> a. Supplier to Supply, Install, test and Commission, Provide user and technical training of the equipment xxii. Warranty – at least two (2) years. After the warranty period is over, five (5) years {annual comprehensive maintenance contract (CMC) will have to be entered. The bidder to provide the price for CMC for the 5 years as a guide in analysis but will not be factored in the current price. The successful bidder has to ensure that all the 			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
required spares and services are available during the period of CMC and three (10) years after that period.			
xxiii.	User & Technical Training: a. supplier to train users on site b. Factory training 2 officers		
xxiv.	The supplier to provide evidence of local capacity to service equipment		
1.2 GENERAL SURGERY LAPAROSCOPIC EQUIPMENT			
1.2.1 General System			
1.2.1.1	The system must be a high-definition universal endoscopy camera system capable of accepting a wide range of camera heads and video- scopes		
1.2.1.2	The system should display full HD images in both 1080/50P and 1080/50i formats to an LCD display to produce an HD image		
1.2.1.3	Camera Control Unit (Processor) and Camera Heads: a. Processor - 1 b. Camera Head - 1		
1.2.1.4	The camera system must be suitable for a wide range of endoscopic disciplines, and be capable of connecting to a range of high definition and standard definition surgical camera heads and video-laparoscopes		
1.2.1.5	The camera Control Unit/ Processor must be capable of processing an advanced imaging system that applies optic digital methods to enhance endoscopic images and improves visualization of the mucosal surface architecture and microvascular pattern. A 3CCD HD Autoclavable camera head should be available		
1.2.1.6	Control of the image capture and video recording devices must be possible from buttons on the camera head or videoscopes and these buttons must also be programmable to control other commonly required functions of the camera system, e.g. Automatic white balance adjustment white.		
1.2.1.7	Camera head must have power focus buttons as well as power zoom buttons, independent of the 3 programmable buttons. Camera head must be less than 400g by weight.		
1.2.1.8	Three-Chip FULL HD Camera Head, max. resolution 1920x 1080 pixels, progressive scan, soakable, gas- and plasma-sterilizable, with integrated Parfocal Zoom Lens, focal length f = 15 - 31 mm (2x), 2 freely programmable camera head buttons.		
1.2.1.9	Camera control unit, for use with three chip Full HD Camera Heads, resolution 1920 x 1080 pixels.		
1.2.1.10	Power supply 200 - 240 VAC, 50/60 Hz.		
1.2.2 Light Source : Qty 1			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
1.2.2.1	In order to allow the enhancement of tissue structures the light source must be capable of providing an optically filtered light output as well as white light for routine diagnostic imaging.		
1.2.2.2	The Light Source must be capable of providing the natural optical light enhancement technology.		
1.2.2.3	The light source and camera processor should be linked to enable the camera control unit to automatically control the output of the light source to achieve optimal light distribution.		
1.2.2.4	The light source must operate on a Xenon Lamp 300W or equivalent LED lighting		
1.2.2.5	Cold Light Fountain Power Light source, high-performance, power supply 240 VAC, 50/60 Hz		
1.2.3	Video Recording: Qty 1		
1.2.3.1	The system must come with a video recorder- either DVD or USB or both		
1.2.4	Insufflator: Qty 1		
1.2.4.1	The laparoscopic insufflator should be high-flow (45 litres/minute), with adjustable automatic smoke/ mist evacuation that removes the smoke/mist whilst maintaining the pneumoperitoneum.		
1.2.4.2	The insufflator should have a large digital display with a choice of display mode settings, which show the preset levels and actual readings of intra-abdominal pressure and flow rates, and also displays the total gas volume delivered. It should have audible and visible alarms that differentiate between excessive pressure and tube obstruction and have two types of protection against gas embolism: automatic suction and automatic overpressure relief.		
1.2.4.3	The insufflator should have normal and small cavity modes to allow for the use in paediatrics.		
1.2.5	Monitor: Qty 2		
1.2.5.1	At least 26 Inch full HD LCD Monitor		
1.2.5.2	Aspect Ration 16:10		
1.2.5.3	Should have Advanced Image Multiple Enhancer for accurate image rendition		
1.2.5.4	Should have Various inputs and outputs, including 3G/HD/SD SDI, DVI, HD15 Y/C and VIDEO		
1.2.6	Workstation/ Trolley: Qty 2		
1.2.6.1	The workstation should be supplied with an isolation transformer which complies with BS-EN 60601-1 and have anti-static castors.		
1.2.6.2	The workstation should have an articulating arm with both horizontal and vertical movement to allow the monitor to be positioned at the optimal height and position.		

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
<p>1.2.6.3 Should be complete with brackets for holding gas cylinders.</p> <p>1.2.7 Surgical Tissue Management System: Qty 1</p> <p>1.2.7.1 Must have a full range of bipolar and monopolar modes</p> <p>1.2.7.2 Must be able to perform Resection in saline*</p> <p>1.2.7.3 Must have a tissue adaptive response, and apply optional required energy for fast effective precise cutting</p> <p>1.2.7.4 input power should be not less than 1500 VA</p> <p>1.2.7.5 High frequency functions include Monopolar / Bipolar functions</p> <p>1.2.7.6 High frequency should be 430 kHz \pm 20%</p> <p>1.2.7.7 Maximum high frequency power should not be greater than 320 W</p> <p>1.2.7.8 Protection class according to IEC60601-1CF, Class I</p> <p>1.2.7.9 Classification according to MDD93/42/EEC IIb</p> <p>1.2.7.10 Sockets present should include</p> <p>MONOPOLAR</p> <ul style="list-style-type: none"> • x 3-pin (\varnothing 4 mm), International standard • 1 x 1-pin (\varnothing 8 mm) • 1 x coaxial (\varnothing inner 5 mm / \varnothing outer 9 mm) <p>BIPOLAR</p> <ul style="list-style-type: none"> • 1 x 2-pin (\varnothing 4 mm, pin spacing 28.8 mm), International standard • 1 x coaxial (\varnothing inner 4 mm / \varnothing outer 8 mm) <p>UNIVERSAL</p> <ul style="list-style-type: none"> • 1 x 7-pin • Neutral electrode • 2-pin standard, single or split <p>1.2.7.11 Unit must have communication capability with insufflator for automatic smoke evacuation</p> <p>1.2.7.12 Unit must be supplied with a footswitch.</p> <p>1.2.7.13 System should be supplied with compatible Ultrasonic Generator to perform single Bipolar/ Ultrasonic sealing and cutting functions with a single hand piece</p> <p>1.2.7.14 Ultrasonic generator unit must be compatible with diathermy unit and Insufflator for Automatic Smoke evacuation</p> <p>1.2.7.15 Generator must be able to deliver both ultrasonic and bipolar energy for reliable vessel sealing and fast tissue cutting from a single hand piece.</p> <p>1.2.7.16 Must have a graphical user interface, for ease of use</p> <p>1.2.7.17 Must recognize instruments automatically, and automatic application of default settings, on plug in of instrument</p> <p>1.2.7.18 Must come with a suitable trolley for mounting the system</p> <p>1.2.7.19 Must be complete with transducer</p>			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
<p>1.2.8 LAPAROSCOPY INSTRUMENTS (RE - USEABLE)</p> <p>1.2.8.1 Reusable Trocar and Cannula 11mm with Gas Tap - Qty – 2</p> <p>1.2.8.2 Reusable Threaded Trocar and Cannula 5.5mm with Gas Tap - Qty – 2</p> <p>1.2.8.3 Reusable Trocar and Cannula 5.5mm without Gas Tap - Qty – 2</p> <p>1.2.8.4 11mm Trocar Caps - Qty – 20</p> <p>1.2.8.5 11mm Cannula Flaps - Qty-20</p> <p>1.2.8.6 5.5mm Trocar Caps - Qty-20</p> <p>1.2.8.7 5.5mm Cannula Valves - Qty- 20</p> <p>1.2.8.8 Insulated Reduction Tube 10mm to 5mm - Qty-1</p> <p>1.2.8.9 Reduction Tubes 13/11mm to 5.5mm - Qty -2</p> <p>1.2.8.10 Veress Needle 120mm - Qty-2</p> <p>1.2.8.11 Fascial Closure Needle, 250mm Lgth - Qty -1</p> <p>1.2.8.12 Straight Needle Holder - Qty -1</p> <p>1.2.8.13 Self-alignment Needle Holder - Qty-2</p> <p>1.2.8.14 Knot Pusher - Qty-1</p> <p>1.2.8.15 Monopolar Needle - Qty-2</p> <p>1.2.8.16 Monopolar Hook - Qty-2</p> <p>1.2.8.17 Monopolar HF Cord - Qty-2</p> <p>1.2.8.18 Metzenbaum 5mm Laparoscopic Scissors, Length 330mm(33cm) - Qty-2</p> <p>1.2.8.19 5mm Hooked Scissors, single action jaws, Length 330mm (33cm) - Qty-1</p> <p>1.2.8.20 5mm Straight Scissors, Length 330mm (33cm) - Qty-1</p> <p>1.2.8.21 Maryland 5mm Dissector with Monopolar Connection - Qty-1</p> <p>1.2.8.22 Traumatic 5mm Grasping Forceps - Qty-1</p> <p>1.2.8.23 Grasping Forceps, rotating, dismantlable, insulated with Monopolar connection, Atraumatic, Fenestrated - Qty-1</p> <p>1.2.8.24 Fine Maryland Cross Tooth Dissector, 5mm Length 330mm - Qty-1</p> <p>1.2.8.25 Bipolar 5mm Johann Grasping Forceps Length 330mm - Qty-1</p> <p>1.2.8.26 Bipolar 5mm Maryland Dissecting Forceps Length 330mm - Qty-1</p> <p>1.2.8.27 Bipolar HF Cable - Qty-2</p> <p>1.2.8.28 Lymph Node Grasping Forceps, Atraumatic 5mm, 330mm Length - Qty-1</p> <p>1.2.8.29 Babcock Forceps, 5mm, Length 330mm - Qty-1</p> <p>1.2.8.30 Claw Forceps, 2*3 Teeth Short 5mm, Length 330mm - Qty-1</p> <p>1.2.8.31 5mm Johann Grasping Forceps, non-single action, Length 330mm - Qty-1</p> <p>1.2.8.32 Suction and Irrigation Handle with pistol grip and clamping Valve - ty-1</p> <p>1.2.8.33 Suction Irrigation Cannula 5mm, with lateral holes - QTY-1</p> <p>1.2.9 Backup Power UPS:</p> <p>1.2.9.1 Input -220-240V (ac) 50/60Hz</p> <p>1.2.9.2 Output- 220-240V (ac) 2500VA</p> <p>1.2.10 MANDATORY REQUIREMENTS</p> <p>1.2.10.1 Manuals</p>			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
<ul style="list-style-type: none"> - User manuals (Both hard copy and soft copy) - Technical Manuals (Both hard and soft copy) 			
1.3 GYNAECOLOGOCGY LAPARASCOPY TOWER			
1.3.1 GENERAL SYSTEM			
<p>This is highly specialized equipment for use in gynecological surgeries. The system must be a high-definition universal endoscopy camera system capable of accepting a wide range of camera heads and video-scopes.</p> <p>The components to include:</p>			
1.3.2 IMAGING AND CART –(Quantity - 1)			
1.3.2.1 Equipment Cart, wide, high, rides on 4 antistatic dual wheels equipped with locking brakes, mains switch on cover, central beam with integrated electrical sub distributors with 12 sockets, grounding plugs, Dimensions in mm (w x h x d): Equipment cart: 830 x 1474 x 730, Shelf: 630 x 25 x 510, Caster diameter: 150 mm consisting of: Base Module, equipment cart wide Cover, equipment cart wide Beam Package, equipment cart high 3x Shelf, wide Drawer Unit with Lock, wide 2x Equipment Rail long, Camera Holder			
1.3.2.2 Monitor Holder, height adjustable, swiveling and tilting, swivel range approx. 360°, and loading capacity max. 18 kg, with monitor mount VESA 75/100 - (Quantity-1)			
1.3.2.3 27" FULL HD Monitor, with VESA 100 adaption, color systems PAL/NTSC, max. screen resolution 1920 x 1080, image format 16:9, Video inputs: DVI, 3G-SDI, VGA, S-Video, Composite, Video outputs: DVI, 3G-SDI, Composite, power supply 100 - 240VAC, 50/60 Hz, 5 V DC output (1 A) including: External 24 VDC Power Supply Mains Cord and a slave monitor of the same specification mounted on cart with same specifications-(Quantity-1)			
1.3.2.4 IMAGE 1 H3-Z SPIES Three-Chip FULL HD Camera Head, SPIES compatible, progressive scan, soakable in gluteraldehyde, gas- and plasma-sterilizable, with integrated Parfocal Zoom Lens, focal length f = 15 - 31 mm (2x), 3 freely programmable camera head buttons for use with IMAGE 1 SPIES and IMAGE 1 HUB HD/HD. The system must come with video recording DVD/USB/both. Camera head must be less than 400g-(Quantity-1)			
1.3.2.5 Full HD CONNECT module (Processor), for use with up to 3 link modules, resolution 1920 x 1080 pixels or better, with integrated Communication and digital Image Processing Module, power supply 100- 240 VAC, 50/60 Hz consisting of: Mains Cord, length 300 cm, DVI Signal Cable, length 300 cm, Digital Communication Connecting Cable, length 100 cm and USB Flash Drive, at least 128 GB-(Quantity-1)			
1.3.2.6 Camera link module, for use with FULL HD three-chip camera heads, power supply 100 - 240 VAC, 50/60 Hz including: Mains Cord, length 300 cm, Link Cable, length 20 cm-(Quantity-1)			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
1.3.3 LIGHT SOURCE:			
1.3.3.1	Cold Light Fountain Power LED 175Watt with integrated Communication module, high-performance LED and one light outlet, power supply 110 - 240 VAC, 50/60 Hz consisting of: Cold Light Fountain Power LED 175Watt, Mains power Cord and Communication Connecting Cable. To come with 2 spare lumps. -(Quantity-1)		
1.3.3.2	Insufflator -40-45Litres		
1.3.3.3	INSUFFLATOR Set, with integrated communication module (touch screen indicating intra-abdominal pressure, flow rate, gas consumption, status of cylinder and in-built alarm), power supply 100 - 240 VAC, 50/60 Hz consisting of: 40Litres Insufflator, Communication Connecting Cable length 100 cm, Universal Wrench, Insufflation Tubing Set with gas filter, sterile, single use package of 10, smoke evacuator-(Quantity-1)		
1.3.3.4	Insufflation Tube, sterilizable, inner diameter 9 cm, length 250 mm, for use with Insufflator 40 Litre Set-(Quantity-1) High Pressure CO2 Hose, American/Pin-Index-(Quantity-1)		
1.3.4 ELECTROSURGICAL GENERATOR			
1.3.4.1	Electrosurgical Generator 400Watt, High-End, power supply 220 - 240 VAC, 50/60 Hz, including mains cord, HF connecting sockets		
1.3.4.2	unipolar: 2x 3-pin US type 5 mm connector, 2x 4 mm connector (via footswitch) (via footswitch) bipolar: 2x 2-pin US type (28.58) 3x, Neutral electrode 2-pol. System must have bipolar hysteroscopy resection functionality and TURP-(Quantity-1)		
1.3.4.3	One-Pedal Footswitch, with button for swtichover function, for use with generators-(Quantity-1) Neutral Electrode-(Quantity-1)		
1.3.4.4	Connecting Cable , for Neutral Electrodes, Length 300 cm-(Quantity-1)		
1.3.5 IRRIGATION AND SUCTION UNIT			
1.3.5.1	Endoscopic Automatic System for Irrigation and Suction, with integrated Communication module, suction, and irrigation pump for gynecology with pre-programmed procedures, incl. power cord, power supply 100 - 240 VAC, 50/60 Hz, -(Quantity-1)		
1.3.5.2	Single-use SUCTION tubing set. Sterile, 10 per pack-(Quantity-5)		
1.3.5.3	Single-use IRRIGATION tubing set with two puncture needles, Sterile, 10 per pack-(Quantity-5)		
1.3.6 INTRAUTERINE SHAVER SYSTEM			
1.3.6.1	Wide-Angle Straight Forward Rod Lens Telescope 6°, with parallel eyepiece, length 20 cm, autoclavable, fiber optic light transmission incorporated with working channel, with LUER-Lock connection for inflow, Colour Coded.-(Quantitv-1)		

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
1.3.6.2	Operating Sheath, 24 Fr., rotating, for continuous irrigation and passive outflow, with LUER-Lock stopcock, Colour coded-(Quantity-1)		
1.3.6.3	Hollow obturator for Operating Sheath-(Quantity-1) DrillCut XII shaver handpiece-(Quantity-1)		
1.3.6.4	Handle, adjustable, for use with shaver handpiece-(Quantity-1) Shaver Blade-(Quantity-5)		
1.3.7	GYNAECOLOGY MOTOR SYSTEM		
1.3.7.1	Gynecology motor system set, with Integrated Communication Module, power supply 100 -120/230 - 240 VAC, 50/60 Hz consisting of: GYN Motor unit, Power Mains Cord, One-Pedal Footswitch, two-stage, with proportional function and pump switch function, Communication Connecting Cable length 100 cm-(Quantity-1)		
1.3.7.2	Control Cable, length 100 cm, for transmission of foot switch control signal between Gynecology Motor System and Endoscopic Automatic Suction and Irrigation System-(Quantity-1)		
1.3.8	HAND INSTRUMENTS SCHEDULE ITEM DESCRIPTION &NO.		
1.3.8.1	Fiber Optic Light Cable, with straight connector, extremely heat-resistant, safety lock, diameter 4.8 mm, length 250 cm : 2		
1.3.8.2	Forward-Oblique Rod Lens Telescope 30°, enlarged view, diameter 10 mm, length 31 cm, autoclavable, fiber optic light transmission : 2		
1.3.8.3	Pneumoperitoneum Needle with spring loaded blunt stylet, LUER-lock, length 13 cm and 20cm:1		
1.3.8.4	Trocac, size 11 mm, color coded consisting of: Trocac only, with pyramidal tip, Cannula without valve, with insufflation stop- cock, length 10.5 cm and Multifunctional Valve:5		
1.3.8.5	Trocac, size 6 mm, consisting of: Trocac only, with pyramidal tip, Cannula without valve, with insufflation stop- cock, length 10.5 cm and Multifunctional Valve:5		
1.3.8.6	6mm trocac seals 100		
1.3.8.7	11mm trocac seals		
1.3.8.8	Sleeve Reducer 11/5mm: 1		
1.3.8.9	Flip-on Reducer 11/5 mm 2		
1.3.8.10	3 piece modular Bowel Grasping Forceps, rotating, with connector pin for unipolar coagulation, size 5 mm, length 36 cm, atraumatic, fenestrated, single action jaws, consisting of: Plastic Handle, with ratchet, with larger contact area, Outer Tube, insulated and Forceps Insert:3		
1.3.8.11	3 piece modular Grasping Forceps, rotating, with connector pin for unipolar coagulation, size 5 mm, length 36 cm, "Tiger-jaw", 2 x 4 teeth, single action jaws, consisting of: Plastic Handle, with ratchet, with larger contact area, Outer Tube, insulated, and Forceps Insert:3		

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
1.3.8.12	3 piece modular Dissecting and Grasping Forcep rotating, with connector pin for unipolar coagulation, size 5 mm, length 36 cm, long, double action jaws, consisting of: Plastic Handle, without ratchet with larger contact area, Outer Tube, insulated and Forceps Insert:3		
1.3.8.13	3 piece modular Scissors, rotating, with connector pin for unipolar coagulation, size 5 mm, length 36 cm, curved, serrated, spoon blades, length of blades 17 mm, double action jaws:3		
1.3.8.14	Rotating Bipolar Grasping Forceps, rotating, dismantling, with connector pin for bipolar coagulation, double action jaws, fenestrated, with especially fine atraumatic serration, size 5 mm, length 36 cm :3		
1.3.8.15	Claw Forceps (Crocodile), rotating, size 10 mm, length 36 cm, 2x3 teeth, single action jaws:1		
1.3.8.16	Coagulating and Dissecting Electrode, L-shaped, with connector pin for unipolar coagulation, size 5 mm, working length 36 cm:1		
1.3.8.17	Suction and Irrigation Tube, anti-reflex surface with two-way stopcock, for single hand control, size 5 mm, length 36 cm:5		
1.3.8.18	Needle Holder, ergonomic axial handle with disengage-able ratchet, ratchet release on the right side, straight jaws, with tungsten carbide insert ø 5 mm, length 33 cm:2		
1.3.8.19	Needle Holder, ergonomic axial handle with disengage-able ratchet, ratchet release on the right side, Left Curved jaws, with tungsten carbide insert ø 5 mm, length 33 cm:2		
1.3.8.20	Knot Tier for extracorporeal knotting, with L-shaped windowing at the distal end, for security adaption of the basic knot, size 5mm, length 36 cm :1		
1.3.8.21	Injection Needle, LUER-lock, diameter 1.2 mm, size 5 mm, length 36 cm.:1		
1.3.8.22	3 piece modular grasping forceps :2		
1.3.8.23	High Frequency Needle, for splitting and coagulation, insulated with connector pin for unipolar coagulation, size 5 mm, length 31 cm:1		
1.3.8.24	Uterine Cannula, with 1 large and 1 small cone, spring-loaded fixation for use with Uterine tenaculum forceps, with LUER-lock adaptor for cleaning:1		
1.3.8.25	Unipolar High Frequency Cord, with 5 mm plug for HF unit, length 300 cm:1		
1.3.8.26	Bipolar High Frequency Cord, length 300 cm:1		
1.3.8.27	3 piece modular Ovarian Grasping Forceps:1		
1.3.8.28	Uterine Manipulator, consisting of; Handle, with fixation screw, Manipulator Rod, Sealing Cylinder, Silicone Seal, package of 3 (3 sizes), Sheath, Working Insert, conical, with thread, medium, Working Insert, atraumatic, diameter 7 mm, length 50 mm, Working Insert, with connector for chromopertubation, atraumatic, diameter 4 mm, length 40 mm, Anatomical Blade, short, diameter 36 mm, length 48 mm, Cleaning Adaptor:1		
1.3.8.29	Plastic Container for sterilization and storage. With separated rack for storage of up to 12 instruments with diameter 2,5 to 10mm and separated insert tray for up to 6 trocars. Perforated, with transparent lid. external dimensions (w x d x h): 532 x 254 x 165 mm:2		

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
1.3.8.30 30 degree 10mm telescope and 30degree 5mm telescope:2			
1.3.9 HYSTEROSCOPY SETS SCHEDULE ITEM DESCRIPTION & NO.			
1.3.9.1	2.9mm 30degree hysteroscope,5.5mm diagnostic/operative sheath with 5fr channel, 5fr hysteroscopy scissors(4), 5fr hysteroscopy forceps(4) must be compatible with sheath, light cable 3m:2		
1.3.9.2	Bipolar resectoscope for hysteroresection kit(1); Bipolar working element, outer sheath, Inner sheath to work with outer sheath, bipolar HF cable compatible with generator, bipolar cutting loops, bipolar roller ball and collins knife, 12 degree hysteroscope compatible with resectoscope:2		
1.3.9.3	5mm myoma spiral:1		
1.3.9.4	A brochure should be provided for technical evaluation		
1.3.10 Manuals			
1.3.10.1	User manuals (both hard copy and soft copy)		
1.3.10.2	Technical Manual (both hard copy and soft copy)		
1.3.11 Installation			
1.3.11.1	Supplier to Supply, install, test, commission and offer training for the equipment		
1.3.12 Warranty- at least 2-Years.			
After the warranty period is over, five years annual Comprehensive Maintenance Contract (CMC) will have to be entered into with the terms and conditions mentioned in the tender specification. The Bidder will prude the CMC cost that will be applicable after expiry of the warranty. The price will be for reference purposes but will not be part of the bid. The successful bidder has to ensure that all the required spares and services are available during the period of CMC and has to be guaranteed for at least 10 years after from the time of equipment installation.			
1.3.13 User training			
1.3.13.1	Supplier to train users on site		
1.3.13.2	Technical Training for at least two officers Supplier to train at least one(1) biomedical Engineer and one(1) nurse at the factory		
1.3.13.3	The supplier should provide references of previous Supplier of similar equipment in Kenya		
1.3.13.4	The supplier to provide evidence of local capacity to service equipment.		
1.3.13.5	The supplier must provide Manufacturers authorization		
1.3.14 GYNAECOLOGY TELESCOPES			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
<p>1.3.14.1 Laparoscopy Forward-Oblique Rod Lens Telescope 30°, enlarged view, diameter 10 mm, length 31 cm, autoclavable, fiber optic light transmission incorporated, color coded -(Quantity 1)</p> <p>1.3.14.2 Hysteroscopy Shaver Wide-Angle Rod lens Straight Forward Telescope 6°, with parallel eyepiece, length 20 cm, autoclavable, fiber optic light transmission incorporated with working channel, with LUER-Lock connection for inflow, color coded-(Quantity 1)</p> <p>1.3.14.3 Hysteroscopy Forward-Oblique Rod Lens Telescope 30°, ø 2.9 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color coded-(Quantity 1)</p> <p>1.3.14.4 Hysteroscopy Resection Forward-Oblique Rod lens Telescope 12°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color coded. -(Quantity 1)</p>			
<p>1.4 LAPAROSCOPIC EQUIPMENT FOR UROLOGY</p> <p>1.4.1 General System</p> <p>1.4.1.1 The system must be a high definition universal endoscopy camera system capable of accepting a wide range of camera heads and video-scopes</p> <p>1.4.1.2 The system should display full HD images in both 1080/50P and 1080/50i formats to an LCD display to produce an HD image</p> <p>1.4.2 Camera Control Unit (Processor) and Camera Heads : Qty 1 Processor, 1 a. Camera Head</p> <p>i. The camera system must be suitable for a wide range of endoscopic disciplines, and be capable of connecting to a range of high definition and standard definition surgical camera heads and video-laparoscopes</p> <p>ii. The camera Control Unit/ Processor must be capable of processing an advanced imaging system that applies optic digital methods to enhance endoscopic images and improves visualization of the mucosal surface architecture and microvascular pattern</p> <p>iii. A 3CCD HD Autoclavable camera head should be available</p> <p>iv. Control of the image capture and video recording devices must be possible from buttons on the camera head or videoscopes and these buttons must also be programmable to control other commonly required functions of the camera system, e.g. white balance.</p> <p>v. Camera head must have power focus buttons as well as power zoom buttons, independent of the 3 programmable buttons.</p> <p>vi. Camera head must be less than 400g by weight for ease of management.</p> <p>vii. Three-Chip FULL HD Camera Head, max. resolution 1920x 1080 pixels or better, progressive scan, soakable, gas- and plasma-sterilizable, with integrated Parfocal Zoom Lens, focal length f = 15 - 31 mm (2x), 2 freely programmable camera head buttons.</p>			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
<p>viii. Camera control unit, for use with three chip Full HD Camera Heads, resolution 1920 x 1080 pixels or better.</p> <p>ix. Power supply 100 - 240 VAC, 50/60 Hz.</p> <p>1.4.3 Light Source : Qty 1</p> <p>1.4.3.1 In order to allow the enhancement of tissue structures the light source must be capable of providing an optically filtered narrow- band light output as well as white light for routine diagnostic imaging.</p> <p>1.4.3.2 The Light Source must be capable of processing an advanced imaging system that applies optic digital methods to enhance endoscopic images and improves visualization of the mucosal surface architecture and microvascular pattern</p> <p>1.4.3.3 The light source and camera processor should be linked to enable the camera control unit to automatically control the output of the light source to achieve optimal light distribution.</p> <p>1.4.3.4 The light source must operate on a Xenon Lamp 300W or equivalent LED technology source.</p> <p>1.4.3.5 Cold Light Fountain Power Light source, high-performance, power supply 240 VAC, 50/60 Hz</p> <p>1.4.4 Video Recording: Qty 1</p> <p>1.4.4.1 The system must come with a video recorder- either DVD or USB or both</p> <p>1.4.5 Insufflator : Qty 1</p> <p>1.4.5.1 The laparoscopic insufflator should be high-flow (45 litres/minute), with adjustable automatic smoke/ mist evacuation that removes the smoke/mist whilst maintaining the pneumoperitoneum.</p> <p>1.4.5.2 The insufflator should have a large digital display with a choice of display mode settings, which show the preset levels and actual readings of intra-abdominal pressure and flow rates, and also displays the total gas volume delivered. It should have audible and visible alarms that differentiate between excessive pressure and tube obstruction and have two types of protection against gas embolism: automatic suction and automatic overpressure relief.</p> <p>1.4.5.3 The insufflator should have normal and small cavity modes to allow for the use in paediatrics.</p> <p>1.4.6 Monitor : Qty 2 – at least 26 Inch full HD LCD Monitor</p> <p>1.4.6.1 Aspect Ration 16:10</p> <p>1.4.6.2 Should have Advanced Image Multiple Enhancer for accurate image rendition</p> <p>1.4.6.3 Should have Various inputs and outputs, including 3G/HDMI/SD SDI, DVI, HD15 Y/C and VIDEO</p> <p>1.4.7 Workstation/ Trolley : Qty 2</p> <p>1.4.7.1 The workstation should be supplied with an isolation transformer which complies with BS-EN 60601-1 and have antistatic castors'</p>			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
1.4.7.2	The workstation should have an articulating arm with both horizontal and vertical movement to allow the monitor to be positioned at the optimal height and position.		
1.4.7.3	Should be complete with brackets for holding gas cylinders.		
1.4.8	Surgical Tissue Management System: Qty 1		
1.4.8.1	Must have a full range of bipolar and monopolar modes		
1.4.8.2	Must be able to perform Resection in saline		
1.4.8.3	Must have a tissue adaptive response, and apply optional required energy for fast effective precise cutting		
1.4.8.4	Power supply Voltage range should be 220- 240 V~ with a Frequency 50 / 60 Hz and maximum input power should be not less than 1500 VA		
1.4.8.5	High frequency functions include Monopolar / Bipolar functions		
1.4.8.6	High frequency should be 430 kHz \pm 20%		
1.4.8.7	Maximum high frequency power should not be greater than 320 W		
1.4.8.8	Protection class according to IEC60601-1CF, Class I		
1.4.8.9	Classification according to MDD93/42/EEC IIb		
1.4.8.10	Sockets present should include		
	<ul style="list-style-type: none"> ● MONOPOLAR <ul style="list-style-type: none"> i. 2 x 3-pin (\varnothing 4 mm), International standard ii. 1 x 1-pin (\varnothing 8 mm) iii. 1 x coaxial (\varnothing inner 5 mm / \varnothing outer 9 mm) ● BIPOLAR <ul style="list-style-type: none"> i. 1 x 2-pin (\varnothing 4 mm, pin spacing 28.8 mm), International standard ii. 1 x coaxial (\varnothing inner 4 mm / \varnothing outer 8 mm) ● UNIVERSAL <ul style="list-style-type: none"> i. 1 x 7-pin ii. Neutral electrode iii. 2-pin standard, single or split 		
1.4.8.11	Unit must have communication capability with insufflator for automatic smoke evacuation		
1.4.8.12	Unit must be supplied with a footswitch.		
1.4.8.13	System should be supplied with compatible Ultrasonic Generator to perform single Bipolar/ Ultrasonic sealing and cutting functions with a single hand piece		
1.4.8.14	Ultrasonic generator unit must be compatible with diathermy unit and Insufflator for Automatic Smoke evacuation		
1.4.8.15	Generator must be able to deliver both ultrasonic and bipolar energy for reliable vessel sealing and fast tissue cutting from a single hand piece.		
1.4.8.16	Must have a graphical user interface, for ease of use		

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
<p>1.4.8.17 Must recognize instruments automatically, and automatic application of default settings, on plug in of instrument</p> <p>1.4.8.18 Must come with a suitable trolley for mounting the system</p> <p>1.4.8.19 Must be complete with transducer</p> <p>1.4.9 Bipolar Resectoscope Set: Qty 1</p> <p>1.4.9.1 System must be Bipolar, with Plasma Vaporization functionality</p> <p>1.4.9.2 System should be continuous flow and rotatable</p> <p>1.4.9.3 Must be compatible to variety of loops including Bipolar 12 Deg Loops, Plasma Vaporization Button Electrodes, Bipolar Roller Balls etc.</p> <p>1.4.9.4 System should comprise of:</p> <ul style="list-style-type: none"> • 1 X 12 Deg 4mm Telescope • 1 X Light Guide Cable compatible with 4mm Telescope • 1 X 26Fr Rotatable Outer Sheath with 2 stopcocks • 1 X Inner Sheath for 26Fr Outer Sheath • 1 X Active Working Element for Bipolar Resection • 1 X Cable for Bipolar resection, compatible with Diathermy Machine above • 1 X Ellik Evacuator with glass bulb, rubber bulb and adaptor • X Visual Obturator <p>1.4.10 Backup Power UPS:</p> <p>1.4.10.1 Input -220-240V (ac) 50/60Hz</p> <p>1.4.10.2 Output- 220-240V (ac) 2500VA</p> <p>1.4.11 UROLOGY REQUIREMENT FOR LAPAROSCOPIC TOWERS</p> <p>1.4.11.1 Lower Tract Set</p> <p>a. Telescopes</p> <ol style="list-style-type: none"> i. Telescope 4mm 0 Degrees-1 ii. Telescope 4mm 12 Degrees-2 iii. Telescope 4mm 30 Degrees – 2 iv. Telescope 4mm 70 Degrees -1 v. Telescope 4mm 110 Degrees -1 <p>b. Cystoscope Sheaths & Attachments</p> <ol style="list-style-type: none"> i. Cystoscopy Sheath 19.8Fr with Obturator - 1 ii. Optical Obturator for 19.8 Fr Cystoscope Sheath iii. Cystoscopy Sheath 21Fr with Obturator iv. Optical Obturator for 21 Fr Cystoscope Sheath v. Cystoscopy Sheath 22Fr with Obturator vi. Optical Obturator for 22 Fr Cystoscope Sheath vii. Cystoscopy Bridge One way - 2 viii. Cystoscopy Bridge Two Way - 2 vi. Albaraan with Bridge 			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
<p>c. Monopolar 26Fr Rotatable Continuous Flow System consisting of</p> <ul style="list-style-type: none"> i. Active Monopolar Working Element- Qty 1 ii. Inner Sheath Qty-1 iii. Outer Sheath Qty-1 iv. Monopolar Cable- Qty - 2 v. Monopolar Loop Electrode – Qty - 12 vi. Monopolar Roller Ball- Qty - 12 vii. Ellik Evaluator Plastic - Qty - 1 <p>d. TURIS Bipolar 26Fr Rotatable Continuous Flow System consisting of:</p> <ul style="list-style-type: none"> i. Active Working Element- Qty 1 ii. Inner Sheath - Qty 1 iii. Outer Sheath - Qty 1 iv. Bipolar Cable - Qty 2 v. Bipolar Loop Electrodes- Qty 12 vi. Bipolar Vaporization Electrode (Mushroom) - Qty 12 vii. Bipolar Roller Ball - Qty 12 viii. Plastic Ellik Evacuator- Qty 1 <p>e. DVU Kit Consisting of:</p> <ul style="list-style-type: none"> i. 22Fr Sheath- Qty 1 ii. 26Fr Outer Sheath - Qty 1 iii. Insertion Sleeve For Balloon Catheter- Qty 1 iv. Working Element - Qty 1 v. Knife, Lancet Type, Straight- Qty 5 vi. Knife Serrated- Qty 5 vii. Knife Semi Circular- Qty 5 <p>f. Bladder Stone crushing forceps Qty 1</p> <p>1.4.12 Upper Tract Set</p> <ul style="list-style-type: none"> i. Semi-rigid Ureteroscope QTY 2 <ul style="list-style-type: none"> ● Angled Ocular ● Single Channel, ● 7° Direction Of View, ● 6.4/7.8FRx430mm ● 4.2Fr Channel ii. Video Ureteroscope - QTY 1 <ul style="list-style-type: none"> ● 8.2Fr Slim Videoscope compatible with Video processor & Light Source 			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
<ul style="list-style-type: none"> • Forward Viewing • Working Length 670mm • Channel 3.6FR • Up Angulation 275° • Down Angulation 275° • Fiberoptic Flexible Ureteroscope 			
iii. Field of view 90°, QTY 1 <ul style="list-style-type: none"> • Forward Viewing, • Evolution Tip 4.5Fr, • Working Length 670mm 			
iv. Nephroscope- Qty 1 <ul style="list-style-type: none"> • 4mm 30Deg OP Nephrosocpe • Outer Sheath 25Fr (Rotatable) Sheath • Sheath Acc For Amplatz 			
v. Stopcock Rotatable - Qty 2 <ul style="list-style-type: none"> • 11Fr 7Deg OP Nephroscope • Outer Sheath Fixed, 15.9Fr • Guiding Tube • Guiding Tube for Second Guide wire 			
vi. Bougie Dilator Tubes 9-28Fr - Qty 5			
vii. Nephroscope Graspers-1 <ul style="list-style-type: none"> • 1.Toothed Grasper 3.25x400mm • 1Grasper With Lumen 3.25x400mm • Fine Toothed Grasper 3.25x400mm • Grasping Forceps 5Fr X 340mm 			
viii. Bugbee Electrode with Monopolar HF Cable - Qty – 2			
1.4.13 ANCILLARY EQUIPMENT			
a. Ultrasonic Lithotripsy QTY-1 <ul style="list-style-type: none"> • Advanced Dual Action Lithotripsy • Plug and Play • Hand Activated • Large Single Lumen Probes for Quick Drilling And Continuous Fragment Removal • Complete with suitable probes for immediate use 			
b. 30 Watt Holmium Laser- 1 Quantity			
Descriptions:			
i. A 30-watt holmium laser for lithotripsy on stones of all types and sizes with high energy per pulse of 5J and repetition rate of 25Hz.			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
<p>ii. The multipurpose, multi-specialty holmium wavelength ideal for fragmenting stones and for precision surgery, including the ablation and vaporization of soft tissue with minimal bleeding.</p> <p>a. FEATURES:</p> <ul style="list-style-type: none"> i. High-resolution screen multi-touch interface screen. ii. Should be able to recognize fiber size. iii. Green aiming beam iv. Save the laser setting for at least last ten treatments used. v. Should be on castors/ on a trolley. <p>b. System Includes:</p> <ul style="list-style-type: none"> ● 1 Single Foot Pedal ● 1 20A Inlet 3 wire cable ● 1 UK Power cable, ● 1 Operator Manual CD ● 1 Debris Shields ● 1 English Laser Warning Sign <p>c. Accessories.</p> <ul style="list-style-type: none"> ● 200µm reusable laser fiber ● 365µm reusable laser fiber ● 550µm reusable laser fiber ● 2 Laser Safety Goggles ● 1 ceramic scissor ● 1 Fiber Inspection Scope ● 3 Steam Sterilization Tray <p>d. SYSTEM SPECIFICATIONS:</p> <ul style="list-style-type: none"> ● Average Power: 30 Watts ● Laser Source: Holmium: YAG ● Wavelengths: 2.1 µm <p>e. Energy per:</p> <ul style="list-style-type: none"> ● Pulse: 0.2-5 Joules ● Repetition Rate: 3-25 Hertz ● Pulse Duration: 650 µsec ± 20% (full width) ● Aiming Beam: Green, with 5 intensity settings ● Display: at least 7" Touch screen color display ● Delivery Systems: Compatible with reusable and disposable fibers. ● Cooling: Internal water-to-air heat exchanger ● Utilities: 50/60 Hz, 220-240 V <p>1.4.14 A brochure should be provided for reference</p>			

Item Code No.	Department	Section	Item Description
LOT 8-22	Operation Theatre	General Surgery	Laparoscopic towers
<p>1.4.15 Manuals</p> <p>i. User manuals (both hard copy and soft copy)</p> <p>1.4.16 Technical Manual (both hard copy and soft copy)</p> <p>1.4.17 Installation</p> <p>1.4.17.1 Supplier to Supply, install, test, commission and offer training for the equipment</p> <p>1.4.18 Warranty-2-Years.</p> <p>1.4.18.1 After the warranty period is over, five years annual Comprehensive Maintenance Contract (CMC) will have to be entered into with the terms and conditions mentioned in the tender specification. The Bidder will provide the CMC cost that will be applicable after expiry of the warranty. The price will be for reference purposes but will not be part of the bid. The successful bidder has to ensure that all the required spares and services are available during the period of CMC and has to be guaranteed for at least 10 years after from the time of equipment installation.</p> <p>1.4.19 User training</p> <p>1.4.19.1 Supplier to train users on site</p> <p>1.4.19.2 Technical Training</p> <p>1.4.19.3 Supplier to train at least one biomedical technician and one nurse at the onsite</p> <p>1.4.20 The supplier should provide references of previous Supplier of similar equipment in Kenya</p> <p>1.4.21 The supplier to provide evidence of local capacity to service equipment.</p> <p>1.4.22 The supplier must provide Manufacturers authorization</p>			

Drawn by:

Name: SignatureDate:

Reviewed by:

Name..... SignatureDate

Name..... SignatureDate

Name..... SignatureDate

Confirmed by:

1. Name: Signature.....Date

2. Name: Signature..... Date.....

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