KERALA MEDICAL SERVICES CORPORATION LTD
(A Government of Kerala Undertaking)
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CIN: U24233KL200TSGC021616, PAN : AADCK4029M, GSTIN : 32AADCK4029M1ZK

Running Contract Details	
Equipment Name	Anesthesia work station Model C
Running Contract Valid Till	24-05-2027
Tender Ref No	KMSCL/EP/T489/2C/2022
Tendered Quantity	15
Supplier Name	M/s Biomedical Engineering Company
GST No	32AAGFB1151K1ZV
Installation & Delivery Period	8 Week(s)
Up-time / PM vist	95% & 4 Visits per year
Warranty period	3 Years

Supplier`s Details		
Address	**Contact Details**	
39/878 A2 - YMJ West Lane Palarivattom Kochi 682025	Contact Person	Mr. Ajith George Mathew
	Phone	
	Mobile No	8921065594, 9447012546
	Email	mail@bechealthcare.com,accounts@bechealthcare.com,sales@bechealthcare.com

Item-wise Price Details

#	Item Details	Unit Rate (Incl.all taxes & charges)	Service Charges (Through KMSCL)	Grand Total
1	Anesthesia work station Model C except the following *Model & Make : Aisys CS2/ Wipro GE Healthcare USA, India*	5036439.52 Incl.GST :12%	371437.41	5407876.93
2	**Iso Flurane Vaporizer**	224000 Incl.GST :12%	16520	240520
3	**Sevo Flurane Vaporizer**	280000 Incl.GST :12%	20650	300650
4	**DesFlurane Vaporizer**	369600 Incl.GST :12%	27258	396858
5	**Cost for upgrading SpHb in patient monitor**	399840 Incl.GST :12%	29488.2	429328.2
6	**Cost for upgrading SpOC in patient monitor**	179200 Incl.GST :12%	13216	192416
7	**Cost for upgrading SpCO in patient monitor**	179200 Incl.GST :12%	13216	192416

Item-wise Price Details				
8	**Cost for upgrading SpMet or PVI.in patient monitor**	24999.52 Incl.GST :12%	1843.71	26843.23
9	**Module for E-Entropy**	325000 Incl.GST :12%	23968.75	348968.75
10	**Module For E-NMT**	300000 Incl.GST :12%	22125	322125
11	**Patient monitor without Transport Monitor** *Model & Make : GE B155M 15.6 INCH*	572540.18 Incl.GST :12%	42224.84	614765.02
12	**Transport monitor** *Model & Make : GE B 105M 10.1 INCH*	269540 Incl.GST :12%	19878.57	289418.57
		8160359.22	**601826.49**	**8762185.71**

Annual / Comprehensive Maintenance Charges (Exl.Tax)							
Rate	**4th Year**	**5th Year**	**6th Year**	**7th Year**	**8th Year**	**9th Year**	**10th Year**
Anesthesia work station Model C except the following							
Labour	1,83,900.00	1,93,095.00	2,02,750.00	2,12,887.00	2,23,532.00	2,34,708.00	2,46,444.00
Comprehensive	3,06,500.00	3,21,825.00	3,37,916.00	3,54,812.00	3,72,553.00	3,91,180.00	4,10,739.00

Other terms & conditions

1. The supplier shall execute an agreement with the purchaser as per tender conditions (agreement format is given in the tender document).

2. The supplier shall submit performance security amounting to 5.00% of the value of the supply order.

3. The labour & comprehensive charges of equipment after the completion of warranty period is finalized by KMSCL as mentioned above.

4. Since discount rate is not applicable for equipment under Running Contract of KMSCL, purchase/supply order can be issued directly to supplier at the given rate with tax & other charges (exclusive of KMSCL service charges).

5. If purchase/supply order is issued directly to the supplier, KMSCL service charge need not be paid. But the copy of the said order may be forwarded to KMSCL for information.

Technical Specification

Equipment :Anesthesia work station Model C except the following

SL. NO.	TECHNICAL SPECIFICATION	
1	Should be three gas integrated Anesthesia workstation for surgical workplaces	
2	Should offer high quality ventilator with single user interface of 15” color touch screen display.	
3	Single user interface should control and display all parameter including control of modes, display of cylinder pressures etc.	
4	The machine should be suitable for low & minimal flow Anaesthesia application.	
5	Machine should be capable of adjusting fresh gas flows and agent concentrations automatically to achieve set target of FIO2/ ETO2, FI agent /ET agent (Automated End tidal Target control).	
6	The machine should have automatic calculations and presetting of patient specific ventilation settings via ideal body weight, age and height.	

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7	Machine should have automatic self-test and user check list. In case of emergency it should be possible to bypass self-test completely. It should have a complete System leak test.	
8	It should have configurable screen layouts for individual screen setups	
9	It should have Nitrous oxide free operation configurable	
10	Anaesthesia machine should be equipped with integrated auxiliary O2.	
11	Anaesthesia machine should be equipped with integrated AGSS compatible to support existing hospital passive/active Scavenging system.	
12	Anaesthesia machine & modern electronic vaporizer should be manufactured by the same company. It should be Fast and instant agent delivery with no warm up time.	
13	Entire Workstation with monitor, modules and software options should be European CE and FDA approved and confirms to EN 6061-2.	
14	It should have uninterruptable power supply for all system components for typical 90 minutes with continuous battery monitoring	
15	Gas delivery system	
	a) Unit should have primary connection for central gas supply for Air, O2 & N2O with onscreen display of pressure at source	
	b) Should provide an additional 15” slave display .	
	c) It should have anytime facility for manual ventilation possible at least with fresh gas O2 delivery.	
	d) Machine should have electronic fresh gas mixture & monitoring system with automatic switch over to alternate O2 in case of system failure.	
	e) It should always be ready to use with quick emergency startup with anaesthesia functionality.	
	f) Audio/Visual alarm for failure of oxygen	
	g) Control of minimum 25% oxygen in fresh gas flow >1L/Min and at least 250 ml of oxygen concentration for minimal flow application (fresh gas flow < 1L/min)	
	h) Integrated O2 flush with self-returning valve.	
	i) O2 safety flow adjustable from 0-10 liters /min for emergency backup use incase of electronic failure.	
	j) It should have the indicator to show the efficiency of fresh gas setting while used in low flow and minimal flow setting.	
	k) Machine should also have an independent electronically switched common gas outlet for connection to Bains or Magill circuit.	
	l) Fresh gas flow settings from “off” , 0.2 to 15 L/Min	
	m) It should have an option /mode to show the efficiency of fresh gas flow setting while used in low and minimal flow that will prevent any fresh gas deficit or chance of getting hypoxic mixture during minimal flow.	
16	Breathing system	
	a) Compact autoclavable breathing system with total circuit volume less than 2.7 liters suitable for minimal flow anaesthesia (excluding patient hoses) for fast response to change in fresh gas composition.	
	b) APL Valve with direct setting of release pressure during bag mode.	
	c) Should have sample gas return option into the breathing system/Scavenging	
17	Integrated Ventilator	
	a) Electronically controlled Electrically/Pneumatically driven latest ventilator.	
	b) Ventilator suitable for Adult/Children without changing of bellow	
	c) Automatic breathing circuit compliance correction	
	d) Spont. Breathing	
	e) Manual Ventilation	
	f) Volume Controlled mode	
	g) Pressure controlled ventilation	
	h) SIMV in VCV and PCV	
	i) Pressure support, PS with CPAP, PS with SIMV in VCV /PCV, Apnea back up & spirometry.	
	j) Auto flow/PRVC/PCV VG or equivalent -Delivering set tidal volume at minimum airway pressure. Lung recruitment & pause gas facility	
	k) Tidal volume adjustable range 20ml -1500 ml	
	l) PEEP : OFF, 4 to 30 cmH2O electronically adjustable	
18	Ventilator monitoring	
	a) Monitoring of Volume, pressure and Oxygen with Waveform display with colour selectable for Airway pressure, Insp/Exp Flow, Volume (with loops), O2, CO2 and primary anaesthetic Agent	
	b) Should monitor patient compliance	
	c) Should display ETCO2, O2 as well as anaesthetic agent and automatic identification of agent	

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	d) Tabular and graphical trend display of all measured parameters.	
	e) The machine should display fresh gas and agent consumption details.	
19	Alarms	
	a) The machine should have Adjustable alarm limits for all the parameters with auto set alarm function	
	b) The machine should have automatic display of MAC values	
	c) It should have automatic activation of low agent alarm	
	d) Should have alarm for blocked sample gas line / water trap	
	e) System leak indication alarm.	
20	Interface	
	a) The system should have one number of RS232 connectivity port /USB port for interface to patient monitor /HIS for automatic data acquisition	
	b) USB output	
	c) Ethernet	
21	Scope of supply	
	a) Adult/Pediatric Autoclavable patient tubing's	
	b) Vaporizer for Isoflurane & Sevoflurane and optional future availability of upgrading to Desflurane (all Vaporizer should be manufactured by the same company as that of Workstation) - unit price to be quoted in the price bid separately)	
	c) Central gas supply hoses color coded	
	d) Instructions for use	
	e) Water trap – 10 no's	
	f) Flow sensor – 4 no's	
22	Specification for IT enabled Patient Monitor for OT (Should be manufactured by the same company & should have the capability to be integrated with anaesthesia workstation)	
1	Should be suitable for adult, pediatric neonatal patients monitoring in fixed environment.	
2	Should have minimum 15" and above Touchscreen display with large fonts and provide access to minimum 12 and above waveforms with ergonomic representation of multifunctionality.	
3	Monitor should be IT enabled for single point access to web based applications (like cath Lab, X-ray, HIS and more).	
4	Should have event recall minimum up to 150 events, graphical and tabular trends, alarm logs, as standard.	
5	Should have minimum ECG, NIBP, SpO2, 2 IBPs, 2 Temperature, BIS/Entropy, NMT as standard. All other parameters should be through upgrades as pods/modules and software.	
6	Should have Arrhythmia detection including life threatening arrhythmias such as VTACH , ASYST, VFIB as standard feature	
7	Should have non-volatile graphic and tabular trending of all monitored parameters as standard for minimum 72 hrs.	
8	Should have manual as well as automatic setting of screen format with selectable parameter priority & color selection for parameter on screen.	
9	Should have excellent cable management with as minimum as possible cables at monitor & patient end for maximum comfort to patient as well as user.	
10	Should have Defibrillator and ESU protection as standard	
11	Facility to upgrade to automatic electronic charting and data management solution with data archival facility for patient monitor/laptop/desktop and ventilator data. Charts should be seen on patient monitor/laptop/desktop screen itself.	
12	Should have manual as well as automatic setting of screen format.	
13	Touchscreen, Rotary knob.	
14	Should have touchscreen technology for with better viewing angle for display of patient parameters.	
15	Large fonts and provide access to up to 12 waveforms or more	
16	Up to 72 hours of real time trend and patient information at the bedside as standard	
17	Should have following parameters	
	a. ECG	
	i. 5 lead ECG monitoring with three leads of ECG waveform simultaneously monitoring.	
	ii. Should display 12 leads of ECG monitoring	
	iii. Range 15 to 300bpm	
	iv. Should display 12 leads of ECG by connecting 10 ECG lead wires as standard feature with max. lead positions as per standard lead placement	
	b. Respiration	
	c. SpO2- Should display digital value and Plethysmograph	
	d. NIBP	
	i. By oscillometric principle of measurement with step wise deflation.	
	ii. Suitable for adult, pediatric , neonatal patients	

SL. NO.	TECHNICAL SPECIFICATION	
	e. IBPs - Simultaneous monitoring of 2 IBP's should be standard - Range: 50 to 400mmHg	
	f. Temperature - two temperature one core and second skin simultaneous monitoring. - Range: 5 to 45 Deg C	
18	Demonstration of quoted model with all required capabilities is a must	
19	Following upgrades should be offered – (Quote unit prices in price bid)	
	1. Additional pressure (IBP)	
	2. Monitor should have the capability to connect to slave display.	
	3. Monitor Mounts for Anesthesia as applicable depending on department to be used	
20	Should have an additional transport monitor /Module manufactured by the same company with battery backup of 180min, and shall allow transport with all hemodynamic parameters . Main vital sign monitor connected to the machine should be able to use at the same time for next patient.	
21	The transport monitor/Module shall be protected against the ingress of water with a rating of IPX4/IP21.	
22	Standard Scope of supply must include:	
	i. Main unit – 1no	
	ii. 5/12 lead ECG Cable – 1 no	
	iii. SpO2 finger sensor with extension cable – adult and paediatric -1 no each	
	iv. Skin temperature Probe – 1 no	
	v. Rectal / Esophageal temperature probe – 1 no	
	vi. NIBP Hose – 1 no	
	vii. Adult & Pediatric Cuff and cuff for obese patient – 1 each	
	viii. IBP reusable cable for 2 IBP and 10 pcs disposable transducers	
	ix. Instruction Manual	
	x. Compatible Monitor Mount for Anesthesia Workstation.	
Note: If CDSCO (Central Drugs Standard Control Organization) certification is required for the import and marketing of the equipment, then the same shall be submitted along with the technical bid		