## FINAL SPECIFICATIONS AFTER PRE-BID MEETING

Sr./No.	Item Name & Specifications	Payment	Estimated	Total
		mode	Unit Price	Quantity
01	ECG Machine Twelve Channel ECG on at least 5 inches LCD display Automatic Operation Variable gain: 1/2, 1, 2 cm/mV Thermal recorder for printing out Twelve channels simultaneously. Interpretation software. Recording Trace speed: 10, 25 and 50 mm/sec, Muscle artifact and AC (50Hz) interference filters Defibrillator protection Built-in AC operation & battery backup minimum 30mins Paper size: A4/210mm Built-in AC interference, noise filter and baseline drift control. Capability to interface with LAN/WLAN for data transfer Paper Roll 50. Accessories: Complete with standard accessories, including separate patient cables for Adult, Pediatric with re- usable electrodes, Comprehensive Service Manual	CIF	0.2 M	23
02	Defibrillator Biphasic transthoracic (external) defibrillator with LCD colour display Synchronized output with ECG. Energy selection & delivery on control panel and paddles for external defibrillation. Energy selection and delivery on control panel for internal defibrillation. Charging Indicator The energy range should be adjustable for peads and adults up to 200Joules. Charging Time for full energy should be less than 07 sec Screen Size of approx. 5 inch colored. Display of HR, ECG through paddles and Lead I.II & III patient cable. Built in recorder for printing	CIF	0.8 M	20

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	of full summery on standard 50mm paper. Alarms for High and low Heart rate, low battery warning. Built-in Rechargeable battery with charger for minimum 50 shocks at max energy. Auto tester/self check. External Paddles (Adult, Paed, Neonate) AED facility with cable Pacing facility AC 220V / 50Hz operated Accessories:	. 3		
	Complete with standard accessories, including reusable type Adult, Paediatric & Neonatal sensors, Comprehensive Service Manual Country of Manufacturer: USA / Europe / Japan			
	Optional: Internal Paddles for Adult & Paeds Defibrillator Analyzer			
3	Electrosurgical Unit:  Microprocessor based electrosurgical unit for normal and under water cutting usages Automatic self-test function Operation in radio frequency range Controls for cutting, coagulation, spray and blends Monopolar cutting power of 300 watts Bipolar cutting power of 80 watts Mono polar coagulation power of 100 Watts Bipolar coagulation power of 50 Watts Spray coagulation mode Different gradations of blending of cutting and coagulation power Digital display of all controls and set values of cutting and coagulation power Audio and visual alarms 220V, 50 Hz Accessories:	CIF	0.7 M	5
	<ul> <li>Monopolar handle with cord.</li> <li>Bipolar forceps with cord</li> <li>Attachment for monopolar coagulation.</li> <li>Bipolar coagulation forceps.</li> <li>Double paddle foot switch, explosion proof</li> <li>Comprehensive Service Manual</li> </ul>			
4	Country of Manufacturer: USA / Europe / Japan Ultrasonic Nebulizer	CIF	0.3 M	20
	<ul><li>For nebulization of respiratory tracts.</li><li>Hospital grade for continuous operation.</li></ul>			

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<ul> <li>Ultrasonically generated uniform and highly dense particles of 0.5-5 microns size.</li> </ul>	
<ul> <li>Approximately 65-70% of particles of less than</li> </ul>	
4 micron size.	
<ul> <li>Autoclaveable delivery pipes.</li> </ul>	
<ul> <li>Air flow of 10 L/min.</li> </ul>	
<ul> <li>Aerosol heating facility</li> </ul>	
<ul> <li>Quiet operation with noise level of less than 40dB.</li> </ul>	
<ul> <li>Nebulizing time setting from 0-30 min.</li> </ul>	
<ul> <li>Medication cup capacity: 150 ml.</li> </ul>	
<ul><li>Power of 220 Volts / 50 Hz.</li></ul>	
<ul> <li>One extra Flexible arm/ delivery pipe/masks (all sizes).</li> </ul>	
<ul> <li>Complete with bacterial filter</li> </ul>	
<ul> <li>Comprehensive Service Manual</li> </ul>	
Country of Manufacturer: USA / Europe / Japan	

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5	Ventila	ator	CIF	3.5 M	10
	VENTIL	ATION:			
		Microprocessor controlled powerful	. 2		
	-	ventilation system mounted on trolley.			
		LCD/TFT color touch screen 15" Minimum.			
		Patient Range: Pediatrics and Adult			
		Breathing classification: Pressure control,			
		Volume control Pressure control with set			
		Volume Breath.			
		Autoclaveable reusable patient tubing circuit			
		for paeds and adult (01 each)			
	MODES	OF VENTILATION:			
		Volume control			
		Assisted CMV			
		Pressure control PC			
		Assist Pressure Control			
		CPAP			
		SIMV+ Pressure support			
		Noninvasive ventilation			
		Bi-level /APRV/BI-PAP Ventilation			
	CONTR				
	rest constitution of section	neasured parameters simultaneously.		25	
		REMENT RANGE/ SPECIFICATION:			
		Inspiratory tidal volume: 5ml to 2000ml			
		Neonatal Mode.	-		
		Respiratory frequency: 5 to 120bpm	. 3		
		SIMV breath frequency: 1 to 50 bmp			
		Inspiratory pressure: 10 to 80 cmH2O			
		Inspiratory flow: 80 L/Min or cmH2O.			
		I : E ratio : 1:4 / 4:1			
		PEEP: 3 to 30cm H2O			
		FiO2/O2 delivery: 21 to 100% (Through			
		paramagnetic Sensor non-consumable)			
	Monito	oring parameters for set and measured value			E.
	A STATE OF THE PARTY OF THE PAR	aneously:			
		Total breath rate.			
Ser.		Oxygen concentration FIO2			
	-	Expired minute volume			
		Peak expiratory flow			
		I : E ratio			
		Peak Pressure			
		Mean pressure			
		Lung Mechanics with pressure and volume			
		loops.			
		Others control and functions:			
		Back up ventilation			
		Pause time INSP			

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	<ul> <li>Microprocessor gas delivery system</li> </ul>			
	<ul> <li>Breath circuit Compliance Compensation</li> </ul>			
	<ul> <li>Expiratory hold/ Inspiratory hold</li> </ul>			
	<ul> <li>Pressure / Volume and flow trigger sensitivity</li> </ul>	1		
	<ul> <li>Trigger sensitivity indication</li> </ul>			
	Trend Data			
	<ul> <li>The waveform should be displayed on</li> </ul>			
	ventilator's screen.			
	ALARMS:			
	<ul><li>Apnea</li></ul>			
	<ul> <li>AC power failure</li> </ul>			
	<ul> <li>High and low Expired minute volume</li> </ul>			
	<ul> <li>High and low peak air way pressure</li> </ul>			
	<ul> <li>High and low breath rate</li> </ul>			- 1
	<ul> <li>FiO2 variation</li> </ul>			
	<ul> <li>Low and high base line pressure</li> </ul>			
	<ul> <li>Gas supply source failure</li> </ul>			
	Low battery			
	NEBULIZER:			
	Built in nebulizer of the patient during			
	ventilation			
	Supply requirements: Electric220 V 50 Hz			
	BATTERY BACKUP:			
	<ul> <li>With internal battery backup of one hour.</li> </ul>			
	COMPRESSED AIR SUPPLY:			
	<ul> <li>The ventilator should be driven on</li> </ul>			
	external compressor for powerful			
	ventilation and should have the capability			
	to connect with central medical pipeline			
	system of the hospital.			
	HUMIDIFIER:			
	<ul> <li>Automatic compensation (Servo) controlled</li> </ul>			
	heated humidifier with temperature			
	monitoring at air way and Humidification			
	camber with alarm for low/ high limits with			
	water tarp in the patient circuit.			
	Note: The warranty of equipment will be including			
	batteries, oxygen sensor, all kind of sensors and flow			
	sensor.			
	Country of Manufacturer: USA / Europe / Japan			
	Comprehensive Service Manual	CIF	-	
	Optional:	CIF		
	<ul> <li>Air Compressor</li> </ul>			
	<ul> <li>Capnography module to monitor carbon</li> </ul>			
	dioxide of the patient.			
6	Mobile X-Ray	CIF	8.0 M	01
	Mobile Microprocessor based X-Ray Unit	×		
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	High frequency, 30KW X-Ray Generator 300 mA at 100 kV Digital display of all set parameters Rotating anode x-ray tube, with dual focus / Single Focus			
	Anode heat storage capacity of at least 107 KHU or more Electronic timer with exposure time of 1-3 msec Automatic over-load protection device and automatic line compensation The unit should be battery supported for exposure and movement (Motorized).			
	220 V, 50 Hz. FDA510k & CE/MHLW certified. Comprehensive Service Manual Country of Manufacturer & origin: USA / Europe / Japan			
7	Blood Storage Cabinet	CIF	2.0 M	02
	Detailed Requirement:			
	Stainless Steel Interior			
	Automatic closing of the door Controlled fan cooling			
	Key operated power switch			
	Safety door lock			
	Interior lighting			
	Integrated RS485/USB interface	1 8		
	LAN Converter			
	220V 50 Hz, AC			
	User Adjustable Settings: Gross volume: 400L			
	Net capacity : minimum 240 blood bags of 450ml			
	Non modifiable temperature set point of +4°C			
	200-250 min hold over time at +25C ambient			
	temperature			
	Safety thermostat			
	Displayed Parameters:			5
	Digital temperature display  Temperature recording and online monitoring			
	Acoustical and visual			
	alarm for			
	temperature and			
	power failure			
	Alarm system with			
	battery backup			
	low and high alarm Door opening alarm			
	Accessories:			
	Complete with standard and operation accessories		1	

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	<ul> <li>Seven day chart recorder</li> <li>Servo Controlled Voltage Stabilizer with surge protection facility</li> <li>Operating Manual with a Soft Copy</li> <li>Service Manual with a Soft Copy</li> <li>Country of Manufacturer: USA / Europe / Japan</li> </ul>	. 3		
8	Motorized Bed  Bed Length: 7 ft approx.  Bed Width: 3 ft approx.  Bed width side rails: 3.5 ft approx. metal/ABS side rails  Height Electrically: 1.5 – 2.5 ft approx.  Maximum load capacity: 200 kg or more  Castor: 12.5 cm or more  Five positions: High, Low, Trendelenburg, Anti- Trendelenburg, Cardiac Chair  Trendelenburg: 12 - 16 deg and CPR position (Auto Button & Manual Control)  Anti-Trendelenburg: 12 - 16 deg  Four section bed: 4-section  X-ray cassette Holder: As per same manufacture specification  IV Hanger Rod: As per same manufacture specification  Conductive Mattress: As per same manufacture specification	CIF	0.45	160
	Central Locking System: As per same manufacture specification  Country of Manufacturer & origin: USA / Europe / Japan  Optional:  1. Over bed table: As per same manufacture specification  2. Bed side locker: As per same manufacture specification  3. Oxygen Cylinder Holder: As per same manufacturer specification			

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9	Syringe Pump	CIF	0.18 M	150	
	Syringe pump for fluid administration.				
	<ul><li>Flow Rates: 0.1 - 400 ml/hr. (Approx.)</li></ul>				
	<ul> <li>Digital display of set parameters.</li> </ul>	1 7			
	<ul> <li>Universal Syringe acceptance capability for</li> </ul>				
	disposable, Plastic, Size, 10, 20, 50, 60 ml.				
	<ul> <li>Drive Accuracy. ±3%</li> </ul>				
	<ul> <li>Display of drug name, Infusion rate, infused</li> </ul>				
	volume and volume to be infused.				
	<ul> <li>Automatic adaptation of controls according to</li> </ul>				
	syringe /infusion set.				
	<ul> <li>Quick freed/rapid infusion facility.</li> </ul>				
	<ul> <li>Rechargeable battery and mains operated 220V,</li> </ul>				
	50Hz.				
	<ul> <li>Safety alarm audible and acoustic for occlusion end</li> </ul>	_			
	of infusion, low battery.				
	<ul> <li>Battery back up 3 to 4Hours.</li> </ul>				
	<ul> <li>Should be compatible with docking station.</li> </ul>				
	Country of Manufacturer: USA / Europe / Japan				
	Optional:				
	i)- Docking station of four				
	ii)- Docking station of six				
	ii)- Docking station of eight				

Electronic Equipment Care Taker Faisalabad Institute of Cardiology Faisalabad Institute of Cardiology Faisalabad.

Faisalabad.

Director Finance Faisalabad.

AMS (Purchase & Store) Faisalabad.

AMS (P&D) Faisalabad Institute of Cardiology Faisalabad Institute of Cardiology Faisalabad Institute of Cardiology Faisalabad.

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