

**PAC HOSPITAL KAMRA (DISTT ATTOCK)**  
**TENDER NOTICE FOR ELECTRO MEDICAL**  
**EQUIPMENTS / MISCELLANEOUS**  
**FINANCIAL YEAR 2019-20**

1. Quotations are invited from the sales tax registered firms for purchase of following Electro Medical Equipments and General Items according to the specifications mentioned against each for use in PAC Hospital Kamra:-

S No	Noun	Unit of Issue	Quantity
(a)	32 Channel EEG Machine	Ea	01
(b)	Patient Monitor	Ea	01
(c)	Defibrillator for Neonate and Peads	Ea	01
(d)	Infusion Pump for Neonate and Peads	Ea	03
(e)	Shoe Cover Machine	Ea	01
(f)	CCTV CAMERA with complete accessories	Ea	16
(g)	Over Head Table for Patient Bed	Ea	36

**(a) SPECIFICATIONS OF 32 CHANNEL EEG MACHINE:-**

❖	<b>Analog Specifications - AC Channels:-</b>	
✓	Referential Channels	: 32
✓	Differential Input Impedance	: $\geq 100$ MOhms
✓	Common Mode Input Impedance	: $\geq 50$ MOhms
✓	Common Mode Rejection Ratio	: -117 dB @ 60 Hz
✓	Input Noise (peak to peak)	: $3.9 \mu\text{V}$ @ 0.1Hz-70 Hz bandwidth
✓	Input Noise (RMS)	: $0.65 \mu\text{V}$ @ 0.1Hz-70 Hz bandwidth
✓	EEG Channel Hardware Gain	: 125
✓	Maximum Differential AC Input Before Clipping (Referential)	: $\pm 20$ mV
✓	Maximum Operational DC Input Voltage Electrode Offset	: $\pm 1000$ mV
✓	Input Bias Current	: $\leq 20$ pA
✓	Channel Crosstalk	: $\leq -70$ dB
✓	Bandwidth	: 0.1 Hz - 400 Hz
❖	<b>User Interface:-</b>	
✓	Push Buttons	: 1 (Importance Check)
✓	Event Switch Connection	: 1 on board
✓	LED Indication	: 68 on board
✓	Additional Connections	: Photic Stimulator
❖	<b>Digital Specifications:-</b>	
✓	Sampling Frequency	: 256, 512 and 1024 Hz
✓	Sampling Resolution Referential Channels	: 16 bits
✓	Sampling Quantization Referential Channels	: 600 mV
❖	<b>Modes of Operation:-</b>	
✓	Power Consumption	: $< 1$ W @ 5 V
✓	Impedance Check	: $< 2.5, < 5, < 10, < 25$ KOhms
✓	Channel Test Signal	: Software Controllable
	• Sine	: 16-32 Hz, 158-10110 $\mu\text{V}$ peak-to-peak
	• Square	: 0.25-0.5 Hz, 50-6400 $\mu\text{V}$ peak-to-peak
❖	<b>PC Interface:-</b>	
✓	Direct	: USB 2.0

❖	<b>Amplifier Mechanical:-</b>	
✔	Approximate Size	: 6.22 x 3.94 x 0.91 in / 15.8 x 10.0 x 2.3 cm
✔	Weight	: 0.72 lb / 328 g
❖	<b>Environmental Conditions for Use:-</b>	
✔	Operating Environment limits	
	• Temperature	: 10°C to 40°C
	• Relative Humidity	: 30%-75%
	• Atmospheric Pressure	: 700 hPa – 1060hPa
✔	Transport and Storage	: -40°C to 70°C
	Temperature Range	
✔	Transport and Storage	: 10%-100%, including condensing
	Humidity Range	
✔	Transport and Storage	: 500 hPa-1060 hPa
	Atmospheric Pressure Range	
✔	Country of Origin	: UK, USA, Japan, Western Europe

--Or equal--

**(b) SPECIFICATIONS OF PATIENT MONITOR:-**

✔	(ECG, RESP, NIBP, SPO2, TEMP)	
✔	High resolution 12.1 inch touch screen	
✔	Trace	: 8 waveforms
✔	Trend Time	: 1-72 hrs
✔	ECG Input	: 5-lead ECG cable and standard AAMline for connection.
✔	Lead choice	: I, II, III, aVR, aVF, aVL, V, V1-V6, TEST.
✔	Gain choice	: x 0.5, x 1, x2, x4
✔	Frequency Characteristic	: 0.05 ~ 35 HZ (+3db)
✔	ECG Waveforms	: 7 channels.
✔	Sweep speed	: 12.5, 25, 50 and 100 mm/sec
✔	HR Display Range	: 30 ~ 300 bpm
✔	Resp range	: 0 ~ 120 rpm
✔	Accuracy	: ± 3 rpm
✔	Sweep speed	: 12.5, 25, 50 and 100 mm / sec
✔	NIBP Cuff Inflating	: < 30s 0 ~ 300 (mmHg) standard
✔	Measuring period	: AVE < 40s
✔	Mode	: Manual, Auto
✔	Pulse Rate Range	: 30 ~ 250 (bpm)
✔	Adult / Pediatric Mode:-	
	SYS	: 40 ~ 250 (mmHg).
	DIA	: 156 ~ 200 (mmHg)
✔	Temp Range	: 25 ~ 50 (°C)
✔	Display Resolution	: 0.1 °C
✔	Alarm Limit Setting:- Upper limit	: 0 ~ 50°C
	Lower limit	: 0 ~ 50°C
✔	SPO2% Range	: 0-100%
✔	SPO2 Accuracy	: ± 2% (70 ~ 100%, non motion)
✔	Pulse Rate Range	: 30-250 bpm
✔	Oxy CRG, drug dose calculation, cascading ECG	
✔	On screen NIBP trends (upto 250 readings)	
✔	Arrhythmia detection	
✔	ST segment	
✔	Battery timing	: 3 hours
✔	Country of Origin	: UK USA, Japan, Western Europe

--Or equal--