12 channel ECG Machine with Interpretation (Optional)

S.N.	Description of function
1.1	ECG Machine is primary equipment to record ECG Signal in various configuration. 12 channels with interpretation (optional) is required for recording and analyzing the waveforms with a special software.

S.N.	Operational requirements
2.1	The ECG Machine should be able to acquire all 12 Leads simultaneously and interpret them. (Interpretation optional)

S.N.	Technical Specifications
3.1	Should acquire simultaneous 12 lead ECG for both adult and pediatric patients
3.2	Should have Real time Colour display of ECG waveforms with signal quality indication for each lead
3.3	Should have Artifact, AC, and low and high pass frequency filters.
3.4	Should have a storage memory of at least 100 ECGs with easy transfer by optional modem and data card.
3.5	Should have full screen preview of ECG report for quality assessment checks prior to print.
3.6	Should have interpretation facility of the amplitudes, durations and morphologies of ECG waveforms and associated rhythm for adult and pediatric patients.
3.7	Should have alphanumeric Keyboard for patient data Entry. **(virtual or hard keys)**
3.8	Should have High resolution (200 dpix500dpi on 25 mm/sec speed) digital array A4 size printer using thermal sensitive paper.
3.9	Should have report formats of 3 x4; 6 x2, Rhythm for up to 12 selected leads; 12 Lead Extended measurements, 1 minute of continuous waveform data for 1 selected lead.
3.10	Should have battery capacity of at least 30 ECGs or 30 minutes of continuous rhythm recording on single charge.
3.11	Should be able to be connected to HIS /LAN/Wireless LAN(OPTIONAL)
3.12	Should display ECG on LCD/TFT Display of 640x480 pixel resolution.
3.13	USB Support (optional) for Storage on external portable memories.
3.14	Multimode of ECG Storage capability on Floppy(min 2), 150 ECG on Internal Flash Memory

S.N.	System Configuration Accessories, spares and consumables
4.1	ECG Machine 12 Leads with Interpretetion (Interpretation Optional) - 01
4.2	Patient Cable -02

4.3	Chest Electrodes Adult-(set of six) -02 sets.
4.4	Chest Electrodes Paediatric-(set of six) -02 sets.
4.5	Limb Electrodes(set of 4)- 02 sets
4.6	Thermal Paper A4 Size for 500 patients.
S.N.	**Environmental factors**
5.1	The unit shall be capable of operating continuously in ambient temperature of 10 -40^0 C and relative humidity of 15-90%
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -50^0 C and relative humidity of 15-90%
5.3	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.

S.N.	**Power supply**
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug
6.2	Resettable overcurrent breaker shall be fitted for protection

S.N.	**Standards and safety**
7.1	Should be FDA or CE approved product
7.2	Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements and IEC-60601-2-25 Safety of Electrocardiograms . (OR EQUIVALENT BIS Standard)

S.N.	**Documentation**
8.1	User manual in English
8.2	Service manual in English
8.3	List of important spare parts and accessories with their part number and costing.
8.4	Certificate of calibration and inspection from factory.
8.5	Log book with instruction for daily , weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out
8.6	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.