Equipment Specifications for Blood Gas Analyser With Electrolyte

1 Description of Function	
1.1	Blood gas analyzers are used to measure blood gases , electrolytes , Ph values and biochemical parameters of the blood
2 Operational Requirements	
2.1	Fully automatic, upgradeable, fast electrolyte combi analyzer
2.2	Demonstration of the system is a must
3 Technical Specifications	
3.1	Essential Measured parameters; pH, pCO2, pO2, tHb, Barometric Pressure, Na+, K+, Ca++, Cl-. All these parameters should be measured simultaneously
3.2	Calculated parameters should include BE, BE ecf, HCO3, Lactate, Anion Gap, SaO2 etc
3.3	Sample volume-less than 100ul.
3.4	Fast analysis time – less than 60 sec
3.5	Maintenance free electrodes with individual electrodes ON/OFF facility
3.6	Fully automatic liquid calibration of all parameters at user-defined intervals without the use of Gas calibrated reagents, external gases, tanks or regulators
3.7	Continuous reagent level monitoring with graphic display.
3.8	Data display on well-illuminated, adequate size LCD color touch screen display.
3.9	Data print out on built in graphic printer.
3.10	Built in auto Quality control facility
3.11	Automatic result processing, test ordering and transmission to the LIS/HIS system(laboratory Information System/Hospital Information System)
3.12	Automatic data archiving and customizable layout . Data backup with read/write CD-ROM drive
3.13	USB ports for easy connection of e.g. flash drives, keyboards, etc.
3.14	Hospital network integration through ASTM and HL7 standard communication protocols.
4 System Configuration Accessories, spares and consumables	
4.1	Blood Gas Analyser -01
4.2	Reagents for one year@ 20 samples/day or as per requirement should be provided along with the machine.
4.3	Electrodes for all the parameters specified -01 set
4.4	Quality control tools/reagents for 1 year @20 samples a day-01 set or as per requirement.
4.5	Cost of reagents should be quoted for comparative evaluation.

5 Environmental factors	
5.1	The unit shall be capable of operating continuously in ambient temperature of 10 -400 C and relative humidity of 15-90%
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -500 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.
6 Power Supply	
6.1	Resettable overcurrent breaker shall be fitted for protection
6.2	Power input :220-240V/ 50 Hz AC Single phase or 380-400V AC 50 Hz Three phase fitted with appropriate Indian plugs and sockets.
6.3	UPS of suitable rating with minimum 30 minutes back up .
7 Standards, Safety and Training	
7.1	Should be FDA or CE approved product
7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
7.3	Manufacturer should have ISO certification for quality standards.
7.4	Stand by blood gas cum electrolyte analyzer in case of breakdown.
7.5	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.
7.6	Back to back warranty to be taken by the supplier from the principal to supply spares for a minimum period 10 years.
8 Documentation	
8.1	User Manual and Service manual in English
8.2	List of important spare parts and accessories with their part number and costing
8.3	Certificate of calibration and inspection from factory.
8.4	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
8.5	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.
8.6	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.