SPECIFICATIONS OF FULLY AUTOMATED CLINICAL CHEMISTRY ANALYZER (MEDIUM SPEED)

- 1. The Equipment must be a Random Access compact System: The instrument should be capable of all routine, STAT and special biochemical tests including specific proteins, therapeutic drugs (TDM), drugs of abuse, immuno-turbidimetric Assays, nutritional status and user definable applications.
- It should be Open System with options of Bar-coded reagents for Automated Online Reagent Inventory, Stability, and Expiry Checks.
- 3. Throughput more than 500 tests per hour with ISE (Minimum 400 Photometric)
- 4. Must have Direct ISE unit for Na, K & Cl measurement. Life time of ISE electrodes should be up to 6 months or 10000 samples.
- 5. Must have minimum reaction volume up to 150 µl.
- 6. Must have self diagnostic tests with error message & online display.
- 7. Analyser must be flexible enough to enable loading variety of sample tubes and cups.
- 8. Must have built in cooled Reagent Compartment to maximize reagent stability & have at least 50 positions for reagents.
- 9. Must have continuous loading of samples facility.
- 10. Must have on board capacity of at least 80 permanent and numbered cuvettes (results matched to cuvettes) with 5 year service life.
- 11. Must have separate reagents probe for R1 and R2.
- 12. Calibration options must be Linear, Factor, 2 Point, Point to Point, Log-Logit, Spline and Exponential with Maximum number of calibrators per test up to 7 calibrators for multipoint and option of Automatic calibration interval.
- 13. Should have both internal & external Probe cleaning/washing facility.
- 14. Sample type & capacity must be Serum, Plasma and Urine, CSF and supernatant with capacity of at least 70 samples position for routine, stat samples.
- 15. Sample Dead Volume and pipetting must be 100 μl in primary tube and 50 μl in paediatric cups. Dedicated sample micropipette with liquid level sensor, crash detection, bubble detection and clot detection. Rinsed inside and outside with purified water.
- 16. Should have onboard laundry system with at least 5 steps washing system.
- 17. System should have inventory management system.
- 18. Provision for automatic checking of serum indices (haemolytic, icteric, lipemic/turbid) should be available.
- 19. System should have 12 different wavelengths (340, 380, 415, 450, 510, 546, 570, 600, 660, 700, 750 and 800 nm) generated through diffraction grating.
- 20. System should have provision to store Multiple Reference Ranges up to 40.
- 21. System should have Separate Dedicated PC System, system compatible. Windows Based Software interface, bi-directional connection to host interface.
- 22. System should have ability to perform automatic re-runs with increased, decreased or diluted sample volume.
- 23. System should allow programming of up to 15 different set panels of tets.
- 24. System should have auto start/shut off facility.
- 25. It should have sample bar code reading facility.
- 26. It should meet all relevant internationally recognised accreditation such as FDA, CE, and UL approval.
- 27. It should have halogen tungsten light source with minimum 1000 hours service life.
- 28. Online QC Tracking with Levy & Jennings Charts for up to 30 different controls and enabled with dedicated peer group reporting software should be available.
- 29. It should be able to perform serial dilution for calibrator.
- The Software should have the provision to store reaction and calibration curves, raw data can be viewed and printed in table
 or graph format.
- 31. Graphical user interface software, Software must be user friendly with LIMS Capability.
- 32. Should have at least 20,000 patient result storage. Complete back up of the system database should be possible for calibration control and patients sample results.
- 33. The system should be able to perform HbA1c testing,
- 34. The system should have an installation base of minimum 25 systems across in Government/Semi Government/Corporate /private establishments, in India.
- 35. The system should be supplied with suitable UPS with 30 minutes battery backup and 2 Ton A.C. with Stabilizer.
- 36. The system should be supplied with suitable external printer.
- 37. The system should be supplied with suitable water purification system.
- 38. The system should be quoted with standard one year guarantee and CMC for next three years should be quoted, after guarantee period.
- 39. Demonstration of functionality should be arranged at Jaipur.
- 40. Service back up should be available within 24 hours after which penalty of Rs. 5000 will be imposed for each passing day, company should have Jaipur based Engineer.

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