Annexure - A

Item No. 1. Technical Specification for Cryostat (Specimen Freezing Microtome)

1. Microtome:-
   a. Type: Maintenance free rotary microtome, encapsulated
   b. Section thickness range: 1 to 100 µm
   c. Trimming range: 1 to 600 µm
   d. Total Specimen feed: 25 mm + 1mm
   e. Vertical Stroke: 59 mm ± 0.5 mm
   f. Specimen retraction: 20 µm
   g. Maximum specimen orientation must be provided.
   h. Facility of specimen orientation must be provided.
   i. Premium (high & low profile both) Disposable Blade holder system must be provided with lateral displacement and integrated glass anti – roll guide. Glass anti – roll guide with antistatic feature to facilate perfect stretching of sections.
   j. Cutting speed: i. Slow: 0 – 50 strokes/min
      ii. Fast: 0 – 85 strokes/min
2. Cryostat: Dimension: WxDxH: 700x850x1025 to 830x850x1210 mm
3. Electric coarse feed:
   a. Slow: 300 µm/s
   b. Fast: 900 µm/s
4. LAMP: 50 hz OR ABOVE
5. Refrigeration System:
   a. Cryochamber
      i. Temperature range: 0° C to 35° C at ambient temperature of 20° C
      ii. Cooling time: -20° C to -35° C approximately for 5 hrs to 8 hrs respectively.
   b. Defrosting of cryochamber:
      A. Automatic programmable defrostimg facility must be available with atleast one automatic defrost cycle per 24 hrs. Duration of the defrost cycle should not exceed 15 mins
      B. Quick freeze shelf:
         - Minimum temperature: -42° C
         - Defrost: Manual hot gas defrost
      C. Specimen cooling:
         - Temperature range: -10 to -50° C
      D. Defrosting of specimen head:
         - Automatic defrost: No
         - Defrost time: 15 mins
6. Suppliers should have a very good after sales service – support with proven track record.
7. Supplier must ensure that the spare parts and consumables will be made available at least upto 7 years from the date of installation.

Item No. 2. Electronic Microbalance

i) Ability to measure a minimum of 0.1mg
ii) With interface for connecting to a computer, printer and other devices.
iii) Equipped with calibration weight.

Item No. 3 Technical Specifications for Clinical Biochemistry Analyser.

1. **Measurement Principles:** Potentionmetric (Indirect ISE), Colorimetric/Rate Immuno- rate.
2. **Type of System:** Random, Continuous, access, batch, discrete processing.
3. **On Board Cpacity/Through put rate:** 1000 tests
4. **Samples type:** Serum, Plasma, Urine, CSF, Ascitic Fluid, Pleural Fluid.
5. **Sample Container:** 10 ml, 7 ml, 5ml, 2-4 ml collection tubes, 1 ml Micro tube, micro sample cup.
6. **Sample Management:** Clot Detection, Bubbles detection, Liquid level sensing, Short Sample Detection, Automatic Sample Pre – dilution
7. **Average Reagent Volume:** 80-120 µl per test.
8. **Cuvette optical path length:** 10mm
9. **Photometer:** Atleast 14 fixed wavelength (340, 410, 451, 478, 505, 545, 571, 596, 658, 694, 751, 805, 845 and 884 nm)
10. **ISE:** Indirect Simultaneous measurement of Na+, K+, Cl+

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