



## Notice Inviting e-Tender

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**Supply and Commissioning of Medical equipment for the District Integrated Public Health Laboratory**  
**(Discipline-Microbiology)**  
(Submission of Bid through *online*)

**Bid Reference No.: WBMSCL/NIT-262/2023**

**Dated-19.05.2023**

**2<sup>nd</sup> call of Bid Reference No.: WBMSCL/NIT-156/2023 ,dated -04.04.2023**

### **AMENDMENT-III**

#### **Revised Technical Specification**

##### **Item No-1**

##### **Biosafety cabinet Class II A2**

1. Vertical laminar flow air to create ISO-**Class II** work area
2. Single piece wall of SS, preferably SS- 304
3. Single piece work tray of SS, preferably SS-304.
4. Side walls are surrounded by negative pressure.
5. **HEPA/ULPA** filter (efficacy 99.999%. Arrests particles S 0.3micron) — 2 (both down flow and exhaust).
6. **UV light arrangement with a UV meter/monitoring facility.**
7. Pressure gauge (dial type) **digital display.**
8. Size : WxDx H = **3 ft x 2ft x 2ft** ( approx)
9. Air flow velocity: Inflow 0.5 M/S, Outflow 0.3 M/S 1(). Heavy Duty Castor wheels
10. Particle counter, velocity, Calibration certificate (In-built) should be provided
11. Certification: CE / EC / UK Cert / US FDA / BIS

##### **Item No-2**

##### **Centrifuge table top (swing out) with 8 tubes upto **4000** RPM**

- 1) Rotor capacity **24 (or more) x 5 ml** swing out.
- 2) Maximum speed should be **4000 rpm or more**
- 3) Power supply 230 volt +/-10v, 50 Hz AC

- 4) Should have automatic rotor identification
- 5) Should have stainless steel centrifuge chamber
- 6) Brushless induction motor with variable frequency drive
- 7) Microprocessor controller with digital display
- 8) Stable speed output even under unstable voltage condition
- 9) Smooth and soft start, low temperature rise
- 10) LCD/ LED display of speed
- 11) Digital countdown timer and continuous run
- 12) Safety lid interlock to prevent lids opening during centrifugation
- 13) Imbalance detection and centrifugation stop with display of error
- 14) Dynamic break for quick deceleration
- 15) Motor over head protection
- 16) Gas hinge to prevent door falling
- 17) Emergency lid lock release
- 18) Should have two (02) year warranty
- 19) Certification: CE / EC / UK Cert / US FDA / BIS

### Item No-3

#### Electronic Balance up to 3 (three) decimal places

1. Type of Electronic Weighing Machine: electronic weighing scale
2. Range: 1 mg to 200 gm
3. Readability: 0.1 mg
4. Display: LED/ LCD
5. Number of Display: single
6. Speed of measurement: 3 -4 Sec
7. Internal calibration: Yes
8. Tare provision: Manual / Automatic
9. Connectivity to Computer: Yes/ No
10. Number of USB ports: 2, NA
11. Power Requirement: Mains operated
12. Power Supply: Single Phase
13. Type of Sensing Element: Load Cell/EMFC
14. Warranty in Years: 2
15. Pan/ Platform Shape: Rectangular/ Square/Diameter
16. Pan/ Platform Size: 290 mm x 240 mm, 300 mm x 300 mm/ 90mm- Diameter
17. Warranty: 2 years
18. Legal meteorological license
19. Certification: CE / EC / UK Cert / US FDA / BIS

### Item No-4

#### Hot plate for culture media preparation

1. Stainless Steel MS powder coating Body
2. Shape: Rectangular / circular
3. Glass ceramic area : 235 mm or more length/ Dia.
4. Digital PID controller

5. Temperature control: 200 degree Celsius
6. Surface Temperature: 250 degree Celsius
7. Power requirement: 220V single phase, power consumption  $\leq 1$  KW
8. Chemical resistance & temperature uniformity
9. Certification: CE / EC / UK Cert / US FDA / BIS

### Item No-5

#### Microcentrifuge Machine ( up to 14,000 RPM)

1. It should be a digital microcentrifuge designed for small sample volume.
2. It should have sturdy and durable metal housing(SS 304 grade).
3. It should have auto-balancing system.
4. Rotor speed should be up to 14000 RPM.
5. Should accommodate at least 12 place x 2.0/0.5mL rotor with screw-on lid microtubes
6. It should have safety interlock that can prevent the lid from being opened during operation.
7. Overheating of motor should be prevented.
8. It should have a precision digital timer that can be set from 30 Sec to 15 minutes at 1 min. increment.
9. It should have LCD/ LED digital display that enables user to monitor the present speed or the remaining time.
10. It should have automatic brake system for rapid deceleration.
11. The lid can be opened automatically/ through switch once the rotor stops spinning..
12. Should be supplied with lid cover (01)
13. Certification: CE / EC / UK Cert / US FDA / BIS.
14. It should have warranty for 2 years.

### Item No-6

#### PCR Workstation

1. Work area size 3 ft W x 2ft D x 2ft H.
2. Vertical laminar flow design.
3. Single piece wall of SS, preferably SS- 304
4. Single piece work tray of SS, preferably SS-304.
5. Average down flow 60fpm +/- 5fpm at 10cm above the work access opening.
6. Down flow velocity should be uniform across the work area and the variance should not be more than 20% from the mean.
7. Continuous monitoring and digital display of down flow velocity desirable.
8. 254 nm UV lights, one on the work area and two behind the HEPA filter.
10. Safety interlock for work area UV light.

11. Should have hour counters for HEPA filter and UV lights.
12. Mini pleat HEPA filter with a typical efficiency of 99.99% at 0.3 microns or better.
13. Work access should be upward sliding type with variable height adjustment.
14. Front and sides should be tempered glass.
15. 2 nos. of 3 pin, 5A electrical sockets with switches should be provided on the back wall.
16. Should be provided with support stand with castor wheels and lock.
17. Certification: CE / EC / UK Cert / US FDA / BIS

### Item No-7

#### **Micro incinerator/ Electric sterilizer for inoculating loops & needles**

1. Max temperature : 800° c or more
2. Chamber: ceramic
3. Power requirement: 220 V AC Single phase,
4. Average cycle time (minutes): 0.1 to 0.2
5. Warranty 02 years.
6. Certification: CE / EC / UK Cert / US FDA / BIS/ ISO

### Item No-8

#### **Autoclave for sterilization / disinfection – 100 Litre**

1. Sterilizer chamber capacity in L (usable volume) - 100 liter
2. Sterilizer Chamber Type: Circular
3. Working Pressure of Chamber: 16 pound per sqare inch
4. Type of Sterilizer Chamber Door Heavy duty SS 304, hinged door
5. Door sealing: By elastomeric rubber gasket suitable to withstand temperature up to 140 degree C & pressure up to 20-30 psi
6. Audio- visual Alarm facility available for notifying: Temperature sensor with range 100°C to 300°C, unit should be provided with a low water alarm system as well as steam release valves and safety valves, Cut off automatically when the autoclave is dry
7. Working Temperature: 121 degree Celsius
8. Range of Pressure Gauge: 30 pound per sqare inch
9. Accessories: Water level indicator, Water inlet & outlet valves, Automatic pressure control switch, Mechanical timer, Manual Water Filling & Removal,
10. The unit must have heater fitted at the bottom and with capacity of more than 3 KW
11. Certification: CE / EC / UK Cert / US FDA / BIS.