

Department of Zoology

BOOST PLAN

List of Instruments with specifications for purchase under BOOST Programme supported by WB-DBT (vide Tender Notice 4/17-18, dt. 1/9/17)

1. Thermal Cycler:

- (i) Block format: 0.2 mL alloy
- (ii) Features: Standard 0.2 mL format and sample block
- (iii) Max block ramp rate: 3.9°C/sec
- (iv) Max sample ramp rate: 3.35°C/sec
- (v) Enabled to run Fast chemistry: Yes
- (vi) Temperature accuracy: $\pm 0.25^{\circ}\text{C}$ (35°C – 99.9°C)
- (vii) Temperature range: 0°C – 100.0°C
- (viii) Temperature uniformity: $<0.50^{\circ}\text{C}$ (20 sec after reaching 95°C)
- (ix) Dimensions (H x W x D): 24.5 x 23.7 x 48.5 cm (9.6 x 9.3 x 19.1 in)
- (x) PCR volume range: 10–80 μL
- (xi) Instrument memory: USB and onboard memory; onboard capacity >500 protocols
- (xii) Display interface: 6.5 inch VGA 32k color with touch screen
- (xiii) Tm calculator: Menu-driven through touch screen
- (xiv) Power: 100–240 V, 50–60 Hz, max. 800 VA
- (xv) VeriFlex Blocks range: 25°C (5°C zone-to-zone)

2. Western Blot Semi Dry system with power pack:

(i) Western Blot Semi Dry system specifications:

- (i) Gel Size : 24x16
- (ii) Buffer requirement : 200 ml
- (iii) Gel Capacity : 3 Bigger size gels and 4 small size gels
- (iv) Transfer time : 15-60 minutes
- (v) Electrode: durable platinum coated titanium anode & stainless steel cathode
- (vi) Safety cover to break the electrical current when lifted to prevent electrical shock
- (vii) Anode platform should rest on 4 springs to accommodate various gel stack
- (viii) Single step locking system for simple & speedy setup
- (ix) Should be light weight up to 3-4kg

(ii) Power pack specifications:

- (i) Output specifications 250 V, 3.0 A, 300W
- (ii) Output range (programmable) 5-250 V, fully adjustable in 1 V increments
- (iii) 0.01-3.0 A, fully adjustable in 0.01 A increments
- (iv) 1-300W, fully adjustable in 1W increments
- (v) Type of output Constant voltage, current, or power with automatic crossover
- (vi) Output terminals 4 pair recessed banana jacks in parallel
- (vii) Timer Up to 99 hr, 59 mm
- (viii) Pause/resume function Yes

3. Elisa Reader

- (i) Wavelength range: 400–750 nm
- (ii) Photometric range: 0.0–3.5 OD
- (iii) Linearity: $\leq 1.0\%$ from 0.0–2.0 OD; $\leq 2.0\%$ from 0.0–3.0 OD
- (iv) Accuracy: $\leq 1.0\%$ or 0.010 from 0.000–3.000 OD at 490 nm
- (v) Precision: 1.0% or 0.005 OD from 0.0–2.0 OD; 1.5% from 2.0–3.0 OD
- (vi) Resolution: 0.001 OD
- (vii) Filter wheel capacity: 8
- (viii) Plate shaking (3 speeds): Low, mid, high
- (ix) Duration, sec: 0–999
- (x) Read time: 6 sec at single wavelength, 10 sec at dual wavelengths
- (xi) Data output: Onboard graphical thermal printer and USB2 interface with PC data stations
- (xii) Data storage: Calendar/clock functions; 64 assay protocols
- (xiii) Multilanguage support: 4 languages, LCD indication supported; printout report supported
- (xiv) Dimensions (W x D x H), cm (in): 34.6 x 37.7 x 16.4 (13.6 x 14.8 x 6.5)
- (xv) Compatible with standard 96-well micro-plates 128 mm L x 88 mm W
- (xvi) Plate height cannot exceed 16 mm

4. UV-VIS Spectrophotometer:

- (i) Optical Design: Dual beam—, grating 1200 lines/mm
- (ii) Spectral Bandwidth: 1 nm
- (iii) Light Source (Typical Lifetime): Tungsten & Deuterium
- (iv) Detector: Dual silicon photodiodes
- (v) Wavelength Range : 190 to 1100 nm
- (vi) Wavelength resolution: 0.1 nm
- (vii) Accuracy : $\leq \pm 0.5\text{nm}$
- (viii) Repeatability : $\leq \pm 0.2\text{ nm}$
- (ix) Photometric Measurement Modes: Absorbance, % transmittance, concentration
- (x) Range: -3 to 3 A ;
- (xi) Accuracy: $\leq \pm 0.005\text{ A}$ at 1.0 A,
- (xii) Drift: $\leq 0.0005\text{ A/hr}$
- (xiii) Stray Light $< 0.05\%T$ at 220 nm and 340 nm, Sample holder : 2
- (xiv) Display Graphical
- (xv) Weight: 23-25 kg
- (xvi) Power Requirement: 220 to 250 V ; 50 to 60 Hz

5. Refrigerated centrifuge:

- (i) Capacity: 24 x 1.5/2mL
- (ii) Max. Speed: 14,800rpm
- (iii) Max. RCF: 21,100xg
- (iv) Noise Level: 50dbA
- (v) Temperature Range: -9° to $+40^\circ\text{C}$
- (vi) Certifications/Compliance: CSA, CE, IVD
- (vii) Type: Benchtop centrifuge
- (viii) Includes: 24 x 1.5/2.0mL Rotor with ClickSeal Biocontainment Lid
- (ix) Electrical Requirements: 100V 50/60Hz
- (x) Warranty: 2 years
- (xi) Refrigerated: Yes
- (xii) Run Time: 1 to 99min (1min increments); HOLD
- (xiii) Standards: IEC 61010-1, IEC 61010-2-020
- (xiv) Dimensions (HWD): 17.5 x 11.6 x 12.9in. (44.5 x 29.5 x 33cm)

6. Horizontal Laminar Flow Cabinets

- (i) Cleanliness : Class 100
- (ii) Particle retention : 0.3 micron
- (iii) Velocity : 90FPM + 20%
- (iv) Illumination : 750 - 800 lumen
- (v) Noise level : 60-65 decibels
- (vi) Standard : FED 209E
- (vii) HEPA filter efficiency: 99.997% at 0.3 microns
- (viii) Power supply : 220v single phase

7. CO₂ Incubator:

- (i) Exterior Dimensions (w x h x d) inch/cm: 18.5 x 18 x 23.5 (47 x 46.5 x 59.7)
- (ii) Interior Dimensions (w x h x d) inch/cm: 12 x 14 x 14 (30.5 x 35.5 x 35.5)
- (iii) Cabinet configuration: bench top
- (iv) Interior: non-corrosive stainless steel, type 304, mirror finish
- (v) Interior volume: 1.4 cubic feet (39.6 L)
- (vi) Exterior 18 gauge, cold rolled steel, high impact painted finish
- (vii) Shelves Construction: stainless steel, perforated
- (viii) Shelf dimensions (w x d) inch/cm: 13.5" x 11.5" (34.3 x 29.2)
- (ix) Surface area per shelf: 1.08 sq. ft. (0.1 sq m)
- (x) Temperature Range: 5°C above ambient to 60°C
- (xi) Temperature Control accuracy: ± 0.1°C
- (xii) Temperature Uniformity: ± 0.5°C @ 37°C
- (xiii) Temperature Alarm: user programmable high/low
- (xiv) CO₂ Range: 0-20%
- (xv) CO₂ Control accuracy: ± 0.1%
- (xvi) CO₂ Sensor: long life thermal conductivity sensor
- (xvii) CO₂ Uniformity: 0.10%
- (xviii) CO₂ Inlet pressure required: 15 PSIG (1.0 bar), 99.5 medical grade CO₂
- (xix) CO₂ Inlet air filtration: 0.3 micron antimicrobial filter
- (xx) CO₂ Alarm: user programmable high/low
- (xxi) Humidity rH: to 95% @ 37°C
- (xxii) Humidity Source: humidity pan, removable
- (xxiii) Electrical Rated voltage: 230V, 50/60 Hz
- (xxiv) Amps/breaker: 1.5/15 1.0/15

Terms and conditions

1. The authority reserves the right to reject any or all the quotations without assigning any reasons thereof.
2. Equipments should be of a reputable make.
3. Documents to be submitted along with the quotation: Copy of the PAN card, Bank details, Trade License, valid GSTIN certificate
4. The cost of instruments should be **inclusive of 3 years Comprehensive Maintenance Contract (CMC) and 2 years additional Annual Maintenance Contract (AMC) & all taxes.** The cost of AMC and CMC and taxes should be mentioned separately along with the price of instruments.
5. Attach the brochure of the instrument with technical specification