**Amendment/Addendum to Tender**

Sub: Tender for setting up of Microbiology Section on Turnkey basis & providing consultancy services for NABL Accreditation for state drug testing laboratory, Tripura.

Ref: IFB NO: HLL/AFT-CMO/TPA /SDTL /2019-20, Dt 08.07.2019

The following addendum in the SECTION VI TECHNICAL SPECIFICATIONS of the tender document referred above is issued:-

**SECTION VI**

**TECHNICAL SPECIFICATION**

**Anaerobic Gas Jar**

* Anaerobic Culture Jar System
* Transparent Anaerobic Culture Jar of 3.5 lit. capacity which is made of Polycarbonate.
* The lid of the jar is made of Aluminium Pressure die casting
* Built-in safety valve and 2 way pressure gauge
* Sturdy Cast Aluminium Clamp
* Nitrile Rubber Sealing O-ring
* Petriplate Carrier (SS)
* Test Tube Carrier (SS)
* Anaero Indicator Tablet

All Beaker, Conical Flask, Flask flat Bottom, Measuring Cylinder, Test tube, Volumetric Pipette, Pipette Graduated, Voluntetric Flask, etc

* Borrosil Glass with “A” Class Certificate

**Autoclave Vertical – 40 to 50L**

* Operating temp. range +50°C to 122°C
* Pt 100 sensor enabling precise monitoring
* MCB for ON/OFF plus safety
* Safety valve for steam exhaust
* Lid, Flange, Fly screw, Cross pins, Heater cover stand are all fully SS.
* All internal joints are argon welded, ground and polished to give crevice free internals.
* Inside, Outside chamber, Carrier are fully SS.
* Hydraulically die pressed lid.
* Electrically heated by means of ISI quality immersion heaters with working pressure 15 PSI.
* Provided with quick release coupling to work on 220/230V
* Drain valve for draining used water
* Power : 230V ± 10%, 50Hz, Single phase

**Automated microbial detection system**

* Modular Benchtop Instrument 40 Vials / Unit

**Features**

* Automated Blood Culture System is an automated blood culture instrument used for the growth and detection of organisms present in blood samples
* Each unit holds up to 40 vials; The system can support up to 4 units (160 vials)
* Utilizes advanced fluorescent sensor technology
* Blood Culture System features LIS interface ability and EpiCenter Data Management connectivity
* Utilizes unique resin media which neutralizes antimicrobial present in the blood allowing for faster recovery of organisms
* Dimensions 15.4 X 23 X 26.6 Inch

**BOD Incubator – 500/600/900 L**

* Microprocessor controller (PID) based BOD Incubator
* **Control panel:** Separate indicator lamps for heating and cooling. User friendly controller to set temperatures as required
* Temperature Range : 5°C to 60°C
* Temperature Accuracy : ± 1°C
* Temperature Uniformity : 2°C
* **Construction :** Double walled construction
* Outer body made of Epoxy powder coated Mild steel with SS 304 grade Inner body
* **Air Circulation :** Fitted with air circulating fan to maintain temperature uniformity in the inner Chamber; blowers have uniformity of temperature under loaded Condition
* **Alarm** : Audio Visual Alarm if the temperature deviates from the set Temperature
* **Trays : E**asily removable Stainless Steel perforated trays. Inner chamber has slots for placing the trays at convenient levels.
* **Lighting :** Interior illumination for working area. Door –operated illumination lamp is fitted inside the incubator chamber for easy visibility.
* Full view through inner glass door with magnetic gasket that allows inspection of samples without disturbing the temperature.
* **Insulation :** CFC free PUF Insulation between outer and inner chamber
* **Heating System :** U shaped S.S. Nichrome wire air heaters
* **Observation Door :** Inside see through Tempered glass door
* Outer front double walled door insulated and fitted with magnetic gasket for air tight closing for no temperature loss, provided with lock and key
* **Refrigeration System :** Hermetically Sealed CFC-Free Compressor with R-134a refrigerant having state of art by pass system for continues run of compressor
* **Control System :** Precise control of temperature and humidity by using micro controller based PID controller (Auto tuning type) with LCD Display
* **Other:** Mounted onCastor wheels for easy mobility; MCB for electrical safety; Adjustable Tray Height arrangement. Heavy duty latch with lock & key
* **Power :** Works on 230 V AC single phase 50Hz
* Supplied with suitable automatic voltage stabilizer
* **Meets ISO and CE standards**

**Refrigerated Centrifuge**

* Programmable control high speed research refrigerated centrifuge having brushless motor with 99 program memory for setting parameters with 10 RPM increment
* Timer with infinite mode, rotor selection.
* Display feature includes working rotor head speed, drive default & RPM & RCF value by selection, & countdown timer
* LCD display electronic lid lock system indicator, rotor vibration indicator, zero start interlock
* RPM max : 20,000 and RCF max: 34500 Xg.
* Temperature range : 10 to 40°C
* CFC free cooling system with S.S 304 chamber (without rotor heads) 3KVA stabilizer recommended
* 12x15ml angular rotor head with epoxy coating 12nos polypropylene tubes
* 24x2/1.5ml angular rotor head with epoxy coating 24nos 2/1.5ml Ependorff tubes

**Membrane Filtration Unit With all Accessories**

**Duck Clamp** - 1No

Material of Construction (MOC) : Aluminum (Anodized) & Diameter of 47mm.

**Replacement Silicon Stopper, Blue** - 10No

Material of Construction: Silicon, & Size of 0-8 no.

**Replacement Silicon Stopper, Green** - 10No

MOC: Neoprene Rubber, & Size of 0-8 no.

**Solvent Filtration assembly (Glass), Autoclavable**

Components includes :

1. Filter holder, MOC: Borosilicate Glass, Filter Diameter: 47mm, Funnel Capacity: 250ml

2. Receiver, Capacity: 1000ml

3. Stop cork: 8 No size, MOC: Rubber

4. Duck Clamp

**Vaccum Pump with Hose Tube**

Components include :

1. Vaccum pump - 15 LPM

2. Hose tube - 10 x 8mm

**Cellulose Nitrate Membrane -** 1 x 100 No.

Diameter: 47mm, Pore size: 0.22μ

**Cellulose Nitrate Membrane -** 1 x 100 No.

Diameter: 47mm, Pore size: 0.45μ

**Cross Over Bench**

* MOC : Stainless Steel 304 grade
* Free standing with nylon bush
* Can store overshoes, cleanroom shoes or outdoor footwear
* Top half open on one side and bottom half open on other side, to store clearoom shoe on one side & outdoor shoes on other.
* Size approx. LWH in cm : 200 x 30 x 61 (it must be customized as per room size)
* Shelf height mm : 230

**Garment Shelf**

* MOC : Stainless steel 304 grade
* Top side tapered from rear to front
* With hanging rail and clothes hanger/hook for hanging aprons
* Louver/ventilation on each door for air circulation
* Individual locker with heavy duty hinges for door operation
* Size LWH (cm) : 91.5 x 50 x 200
* No. of lockers: 4/8

**Binocular Microscope**

* Standard microscope set complete with built-in 6V, 20W halogen light illuminator with regular power supply, quadruple ball bearing nosepiece, co-axial coarse and fine focusing controls
* High resolution Semi-Plan Achromat objectives 4x, 10x, 40x (spring) and 100x (spring, oil immersion)
* 360deg rotatable inclined binocular tube
* fungus resistant optics for tropical use,
* Wide field paired eyepiece HWF10x (F.N.18),
* Right hand control co-axial low drive mechanical stage and rack & pinion focusable Abbe condenser 0.9/1.25 N.A with iris diaphragm,

**Magnetic Stirrer with Bead**

Magnetic Strirrer with Hot plate has stainless steel top housing. Permanent Magnet DC (PMDC) motor gives high torque even at lower speeds and maintains speed stability despite viscosity or volume changes. Accurate steeples speed control allows smooth variation up to 1200 rpm.

**SALIENT FEATURES**

* PMDC motor for higher torque even at low speeds
* Better speed regulation even with small volume and low speeds
* Accurate stepless speed control maintains excellent speed stability.
* Digital Speed Indicator for displaying of stirring speed
* Totally enclosed unit
* Designed for use even in corrosive atmosphere
* Stirring Capacity: 1 LTRS
* Provided with magnetic beads

**Lab Table**

MOC : Stainless steel

Size LWH cm: 60 x 60 x 90

**Lab Stool**

MOC : Stainless steel

Type : Rotating or Revolving

Size : Seat – Ø33 cm ; Legs : 4 no.s ; Height : 53 to 58 cm

Provided with foot rest and nylon bush

**Ultra sonic cleaner/Bath**

Capacity : 30ltr

Size : Tank size – 500 X 325 X 200 MM

External size- 585 X 350 X 480 mm

Ultrasonic Power : 600 Watts

Heater : 500 Watts

* Single Display, Digital Timer, Auto Degassing for 5 min & heater
* Pulse Sweep Power For Uniform Distribution Of Ultrasonic Energy, Digital Temperature Controller With 60°C Temperature Settings.
* Ultrasonic Generators: Advanced Latest Igbt / Mosfet Based Smps, Very Compact & Most Reliable.
* PSP: Pulse Sweep Power For Uniform Distribution Of Ultrasonic Energy.
* Sensor : Pt-100 For Accurate Temperature Sensing.
* Accessories: Lid, Basket & Drain Valve.

All other terms and conditions in the original tender remain unchanged.

**Dt. 24-07.2019                                                            Deputy General Manager (Materials)**