

उत्तराखण्ड जैव प्रौद्योगिकी परिषद्

बायोटेक भवन, हल्दी-263146, ऊधमसिंह नगर, उत्तराखण्ड

निविदा प्रपत्र

निविदा संख्या : UBC - 03	निविदा शुल्क रू0 1000.00 + 18% GST
निविदा प्राप्त करने की तिथि व समय	दिनांक 17.07.2021 को पूर्वाह्न 10.00 बजे से
निविदा प्राप्त करने की अन्तिम तिथि व समय	दिनांक 29.07.2021 को अपराह्न 05.00 बजे तक
निविदा जमा करने की अन्तिम तिथि व समय	दिनांक 30.07.2021 को पूर्वाह्न 11.00 बजे तक
निविदा खोलने की तिथि व समय	दिनांक 30.07.2021 को सांय 4.00 बजे

पादप ऊतक संवर्धन प्रयोगशाला में उपयोग होने वाले उपकरण

क्र. सं.	कार्य का विवरण	अनुमानित धनराशि	जमानत धनराशि	घरोहर धनराशि	निविदा प्रपत्र का मूल्य	कार्य पूर्ण करने की अवधि
1.	पटवाडांगर, नैनीताल में पादप ऊतक संवर्धन प्रयोगशाला में उपयोग होने वाले विभिन्न उपकरणों का क्रय (सम्पूर्ण विवरण निविदा प्रपत्र में संलग्न)	25,00,000/-	1,00,000/-	75,000/-	1000 + 18% GST	30 दिन अधिकतम

मैं मैं0..... निविदा के नियम, शर्त तथा कार्य विवरण इत्यादि का गहन अध्ययन कर लिया है। इसलिए मैं
घरोहर धनराशि रू0 75,000.00, बैंक ड्राफ्ट/ नगद रसीद/ अन्य संख्या दिनांक
जमानत धनराशि रू0 1,00,000.00 बैंक ड्राफ्ट/ नगद रसीद/ अन्य संख्या दिनांक
निविदा मूल्य धनराशि रू0 1,180.00 बैंक ड्राफ्ट/ नगद रसीद/ अन्य संख्या दिनांक
को संलग्न किया जा रहा है।

फर्म का नाम

फर्म का पता

मोबाईल नं0

पैन नं0

बैंक खाता का विवरण

आधार कार्ड संख्या

परिषद् में पंजीकरण संख्या

निविदा जारी करने वाले के हस्ताक्षर

निविदादाता के हस्ताक्षर

Uttarakhand Biotechnology Council
Patwadangar, Uttarakhand

Tissue Culture Lab Equipments

Tissue Culture Lab Equipments with under mentioned technical and operational details as under.

1. Tissue Culture Commercial Rack (Set of 5 Racks) 2 Sets

Technical Specifications :-

Size of each Rack : 4'2" x 2' x 7'1" (L x W x H)

Size of each Shelf : 4'2" x 2'

No. of working shelves : 5 Nos.

No. of lamps in each shelf : 5 Nos. in one Shelf. (Total – 25 Nos. in One Rack) Controlling Switches : Separate for each light.

Shelf Surface : White Bakelite Sheet 3mm thick.

Moving mechanism : Gear type moving Rack system over fixed rail arrangement.

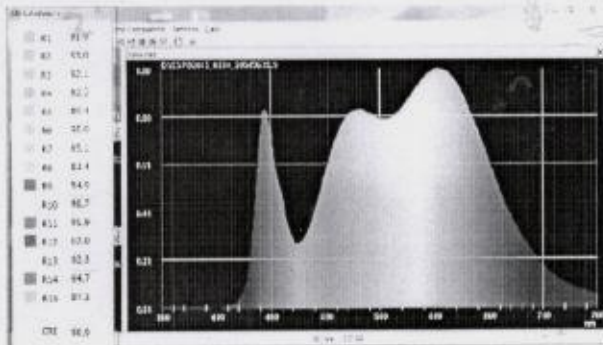
Protecting supports on all side of each shelf.

Individually operated PAR Surface Mount Device Type SMD T8 LED Lamps producing 50 to 130 $\mu\text{E}/\text{M}$ per sq.m2/Sec area, CRI>80

Frame mild steel 2.5 x 2.5 cm CRC. sq. Pipe with anticorrosive, humidity resistant powder coating.

Wide operating Voltage Range : 100V – 277 V AC, 50 Hz

(Spectrum details of T8 SMD LED Lamp)



2. Microprocessor Control Panel for Automation (CE certified) (User friendly) for TEMPERATURE, HUMIDITY, LIGHT & CO₂ duly fixed L&T make contractors and miniature circuit breakers with rigid standard of safety

Technical Specifications:-

Fully PLC/PID based control system for controlling and maintaining the desired Temperature, RH, Light & CO₂ for controlling the environment inside the Tissue Culture Lab along with data storage capacity on PLC itself. It will have a programming feature to link multiple programs and equipped with surge arresters, IP22 protection and TOUCH SCREEN CONTROLLER (HMI) for depicting the values of Temperature, Humidity, Light and CO₂ of all probes. Control system will have audio/ audio visual warning/alarm when set temperature/RH/ lighting is below or above the set values. Locking facility for the entire control system, along with two keys will be provided. No data loss, Option will be provided to send emails directly from the PLC with PC Communication.

3. Humidity (Upto 90%) using Ultra Sonic Vapour Humidifier, it creates the simulated natural humidity in Culture Room without disturbing the inside TEMPERATURE because vapour comes out in cold form.

Salient Features : Optimum Utilization of water. Instant Vaporization (STARTS). No thermal losses.

Automatic water selection system. Auto off incase of non availability of water.

Low electrical consumption.

Ultrasonic Frequency : - 1700±40 KHz, **Ceramic Disc size : Φ 20mm** Titanium Coated. Mist Generation > 900 ml/Hr. Stainless Steel 304 grade enclosure (2 liter water storage capacity) with automatic water feeding arrangements and fiber filter with RO system and a reservoir.

4. Dehumidifier

Suitable for ambient temperature of 15°C - 40°C

Salient Features

Multi-directional air outlet

The multi-directional front outlet provides a wide range of air circulation which dries more space desired.

Microcomputer automatic control

Compact design with a handle. Easy to lift.

Specifications

Power: 220-240V, 50Hz

Microcomputer humidity-level controls

Dehumidification capacity: 16 liters per day at 30°C, 80% RH.

Power consumption: 420W, 2.6 A

Fan-Only mode provided

Auto pause when bucket is full

Refrigerant: R134a

5. Cooling System

Emerson Copeland make hermetically sealed complete condensing unit having commercial compressors (400V/3Ph./50Hz) with Hitachi / Daikin make evaporating unit complete with Drier, LP/HP, Suction/Discharge valve, first charge of CFC free refrigerant.

6. Heating System

Heavy duty Paralytic Technique Which is ideal for heating in biotech work. Inbuilt auto thermal cut off device, Biotech grade 2.5 KW. It has ISI standard make heating element and ISI standard 900 rpm speed fan they prevent SO₂ injury to plants as caused by other make of heater due to improper combustion of fuel gases as a common phenomenon seen in Culture Labs . Input 200-240 VAC, 50 HZ, single phase. Ambient 5°C to 50°C , RH upto 90%.

7. Pass Box

Pass Boxes are suitable for transfer material from one room to another room without mixing of two environment.

Technical Specifications

Dynamic/Static Type

MOC-CRCA Powder Coated.

UV light.

Door Aluminum with Glass

Interlocking – Microprocessor base with magnetic lock (No Moving part)

Size – 600mm x 600mm

8. Air Shower

The Air Showers are self-contained chamber installed at the entrance to the clean room to minimize the amount of Particulate Contaminants entering the clean room. Person and material moves through the Air Shower while particulate contaminants are washed off with high velocity of 20 – 25 m/s, ensure efficient scrubbing action necessary to remove particulate matter.

Fitting Feature -

Body with 18 gauge oven backed CRCA Powder Coated finish

Nozzles are oven baked Aluminum powder coated for additional protection against corrosion and rust.

Heavy duty Aluminum framed Glass Door

Electromagnetic Locks and Emergency push buttons for locking the door instantly
HEPA filters of 99.97% efficiency down to 0.3 micron.
Replaceable pre - filter with 50% dust arresting capacity to maximize the life of absolute filters.
PVC flooring to facilitate cleaning.
Indication light to regulate the traffic flow in and out of the air shower
Static and dynamic blower for reduce noise.

9. Horizontal Laminar Air Flow Bench (4 Nos.)

Technical Specifications

- **Working Table** top made of stainless Steel 304 grade Size 4' x 2'
 - **Working Area** - 4' x 2' x 2'
 - **Cabinet made of 19mm termite and insect resistance board with white sunmica on Exterior surface.**
 - **Front Transparent Plexi Glass/ Acrylic 5mm thick door for better accessibility**
 - Side panel are made out **Plexi Glass/ Acrylic** 5mm duly framed.
 - **Lighting** 1. **UV Lamp** 1 No. will be provided (3' size 30W)
2. 1 x 40 w Fluorescent Tube with Individual ON/OFF operations.
 - **Static Pressure Manometer** for calibrated to assess static pressure in **HEPA Filter**. Frame Al. Ext. section Box type.
 - a) **Suction End:** Washable pre filter and 90 % efficient to 5 micron or less micron 1 No.
 - b) **Delivery End:** Mini Pleat HEPA Filter are 99.99% efficient down to 0.2 to 0.3 micron , increased compactness, reduced resistance to flow, and gently enhanced dust holding capacity (FRONT SIDE) with face guard. (Filter Size : 1200mm x 610mm x 75mm further covered with Plastic Grill.
- The highest quality borosilicate glass media is used and tested with-
- Type A: - Minimum efficiency of 99.97% on 0.3pm at rated flow. Efficiency tested using Hot

DOP.

Type B: - Minimum efficiency of 99.97% on 0.3pm at 100% and 20% of rated flow.

Efficiency tested using Hot DOP.

Type C: - Minimum efficiency of 99.97% on 0.3pm and scan tested with Hot DOP challenge for spot penetration using face scanner.

Strictly are as per IES-RP-CC001.3.

Flow rate - 750 CFM

IPD - 188 mm

FPD - 60mm

Pleat pack thickness - 55 mm

- Heavy Duty Nylon castor wheel
- Regulator for Blower units (Selectable Speed low , medium and High) with ¼ H.P. 1440 RPM, Velocity 90ft/min ±20 %. Electric motor of "American Universal". Entire Blower Assembly mounted on frame and ensure noiseless and vibration free working.
- Provision for 5 + 15 Amp. Three pin power terminal.
- Castor with breaks.

10. Programmable air Exchanger unit

Supply and Installation of BL 4-P Std. Programmable air Exchanger units fitted with High Efficiency Particulate Air filter (HEPA filters having efficiency of 99.99% down to 0.2 to 0.3 micron particle size, increased compactness, reduced resistance to flow, and gently enhanced dust holding capacity) operated through a programmable timer depending on the number of air changes required inside the Growth room.

11. Vertical Autoclave:(Quantity 1 No.)

Double walled vertical autoclave; Electric Autoclave fitted with heating element; Capacity: 100 Litre or more;Temperature: Maximum up to 125Deg.C or more;Good quality rubber Gasket. Max. Pressure 15 PSI;Should be equipped with safety pressure release, weight, steam release/control valve. Should have strong and durable vacuum and steam release valves.

12. Double distillation plant

Technical Specification: Quartz boiler within built heater and borosil glass condenser, complete with stand, clamps etc. conductivity of distilled water produced is less than $1\mu\text{S cm}^{-1}$ and pH 6-7 suitable for HPLC Capacity 5 ltr, with double wall coiled condenser, complete with glass fittings, metallic stand, ring clamps, electrical fittings with automatic low water level cut-off device, rubber tube (Special grade) fittings with auto thermal sensor cut-off.

14. Hot Air- Oven

Specification: -24"x24"x36", Temperature range-ambient- 250°C (uniform), Digital temp. Controller with $\pm 1^\circ\text{C}$ accuracy, pilot lamp, perforated shelves High tech multi purpose oven – double walled. Inside chamber is made of thick SS 304 Grade non magnetic Outside durable epoxy powder coated MS sheet.60mm insulation with pure white glass wool. Heating elements ISI make placed in the rib at the bottom and three sides. Adjustable air ventilators on both the sides. Adjustable perforated shelves.

15. Analytical balance capacity, 0.01mg - 220 gms.

Accuracy $\pm 0.1\text{mg}$.

High Contrast LED Backlit LCD display is exceptionally easy to read under any room lighting conditions with digit size 15 mm.

Only a single cable is required to transfer balance data to MS Excel or other Windows application through RS232C

interface. No troublesome interface attachment or software installation is necessary. This unique feature makes

Azet balance extremely convenient for data analysis.

The proven MonoTech weighing technology guarantees long operation life and extreme ruggedness

With built in clock and facility of editing IDNR and LID for individual reading

makes your documents comply according to ISO/GLP.

Automatic External calibration ensures the accurate results consistently

Standard Under weighing hook for below balance weighing, Unit of measure

gram, ounce, troy ounce, grain, pennyweight, carat, Milligram, momme, mesghal, Hong

Kong tales, Singapore tael, Taiwan tales, baht

16. Multiparameter pH-EC Meter

Tablet style meter, Digital Electrodes, Sensor Check, Wall Mount, adle and Electrode Holder, Two USB Ports, Two USB Ports, Two Operating Modes; pH Range -2.000 to 16.000 pH, -2.00 to 16.00 pH, $\pm 1000\text{ mV}$; pH Resolution 0.001 pH, 0.01 pH, 0.1 mV; pH Accuracy $\pm 0.002\text{ pH}$, $\pm 0.01\text{ pH}$, $\pm 0.2\text{ mV}$; pH Calibration 5 points (Standard mode) 1.68, 4.01 (3.00 \dagger), 6.86, 7.01, 9.18, 10.01, 12.45, and two custom buffers; 3 points (Basic mode) 4.01; 6.86; 7.01; 9.18; 10.01; pH Temperature Compensation ATC: -5.0 to 100.0°C; 23.0 to 212.0°F; pH CAL Check (electrode diagnostics) Probe condition, response time, glass and reference junction diagnostics (HI 11311 & HI 12301 only)

EC Range 0.00 to 29.99 $\mu\text{S/cm}$, 30.0 to 299.9 $\mu\text{S/cm}$, 300 to 2999 $\mu\text{S/cm}$, 3.00 to 29.99 mS/cm , 30.0 to 200.0 mS/cm , up to 500.0 mS/cm (absolute EC) EC Resolution 0.01 $\mu\text{S/cm}$, 0.1 $\mu\text{S/cm}$, 1 $\mu\text{S/cm}$, 0.01 mS/cm , 0.1 mS/cm EC Accuracy $\pm 1\%$ of reading ($\pm 0.05\text{ }\mu\text{S/cm}$ or 1 digit, whichever is greater) EC Calibration: 1 point offset calibration (0.00 $\mu\text{S/cm}$ in air), 1 point slope calibration in EC

standard 84 $\mu\text{S/cm}$, 1413 $\mu\text{S/cm}$, 5.00 mS/cm , 12.88 mS/cm , 80.0 mS/cm and 111.8 mS/cm ; TDS Range 0.00 to 14.99 ppm (mg/L), 15.0 to 149.9 ppm (mg/L), 150 to 1499 ppm (mg/L), 1.50 to 14.99 g/L, 15.0 to 100.0 g/L, up to 400.0 g/L (absolute TDS)**, with 0.80 conversion factor; TDS Resolution

0.01 ppm, 0.1 ppm, 1 ppm, 0.01 g/L, 0.1 g/L; TDS Accuracy $\pm 1\%$ of reading ($\pm 0.03\text{ ppm}$ or 1 digit, whichever is greater); TDS Calibration through EC calibration; EC/TDS Temperature Compensation ATC (0.0 to 100.0°C; 32.0 to 212.0 °F), NoTC; Temperature Correction Coefficient

0.00 to 6.00%/°C (for EC and TDS only), default value is 1.90%/°C; EC to TDS Conversion Factor 0.40 to 0.80; Salinity (% NaCl) Range 0.0 to 400.0% NaCl Salinity (% NaCl) Resolution 0.1% NaCl; Salinity (% NaCl) Accuracy $\pm 1\%$ of reading (@25°C/77°F); Salinity (% NaCl) Calibration 1

point with HI 7037L 100% NaCl sea water standard; Salinity (PSU) Range 2.00 to 42.00 PSU***; Salinity (PSU) Resolution 0.01 PSU; Salinity (PSU) Accuracy±1% of reading (@25°C/77°F); temperature Range-20.0 to 120.0 °C, -4.0 to 248.0 °F; Temperature Resolution0.1°C, 0.1°F; Temperature Accuracy±0.5°C,±0.9 °F
pH Electrode HI11310 pH electrode (included); Logging Type Manual log-on-demand (Max. 200 logs); Manual log-on-stability (Max. 200 logs); Interval logging (Max. 600 samples; 100 lots); Logging Memory up to 1000; Connectivity1 micro USB port for charging and PC connectivity, 1 USB port for storage; Battery Type/Life Built-in rechargeable battery with up to 8 hours of continuous use; Power Supply 230VAC to 5 VDC adapter (included); Environment0 to 50°C (32 to 122°F), RH max 95% non-condensing
Dimensions 202 x 140 x 12.7mm (8" x 5.5" x 0.5"); Weight250 g (8.82 oz)

17. Glass Bead Sterilizer

Cabin Size : 140mm x 125mm x 280mm

Brass Crucible Size : 50mm Dia 162.5 mm depth

Preset Temperature Range : 230°C - 250°C.

Initial Stabilization Time : 30 minutes

Wattage : 250W, single phase.

Input : 220V, 50 Hz.

18. Tray trolley

18" x 24" Double tier 304 grade Stainless Steel trolley with 2 shelves, castors for easy operation.

22. Micropipettes : 0.5 – 10 µL, 10 – 100 µL, 100 – 1,000 µL

Mechanical air-cushion pipette for accurate & ergonomic pipetting of aqueous solutions

Feel the difference in weight and pipetting forces: this ultra-light pipette, Minimal tip attachment forces due to a spring-loaded tip cone, helping to reduce stress Benefit from one of the lowest operating and tip ejection forces on the pipette market, Temporarily adjust your pipette in seconds for better accuracy when pipetting various challenging liquids like ethanol or when pipetting at high altitudes. Return to factory adjustment without calibration, Autoclave the entire pipette or only the lower part according to your needs to ensure decontamination, Ultra light Perfect Piston system made of Forton

25. Micropipettes

Single Channel fully Autoclavable with built in tip ejector

Volume range : 100 µl - 1000 µl

29. Horizontal Bottle washer

Specification:Twin Head Bottle Washing Machine (Horizontal Model), Bottle Washing by Brush is an ideal for modem laboratories. It can wash the bottle or flask of various sizes due to its chuck taking wide variety of inter changeable nylon brushes for cleaning them. It is fitted with ¼ Hp. Electric motor covered in a beautiful and well design made of steel duly paint finish complete with chuck locking device and Off/On switch, pilot lamp, cord and plug to work on 220/230 volts AC mains and a GI Soak Tank of 30" x 20" x 12" size.

IGST : @ 5% Extra against DSIR certificate or 18%.

Packing Forwarding : nil.

Warrantee : **One year** against all manufacturing defects.

Delivery : Within 8-10 weeks after receiving the purchase order

Payment : 80% on physical delivery of Stores and balance after completion.

Validity : Upto 90 days

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