



PANJAB UNIVERSITY
DEPARTMENT OF BOTANY
CHANDIGARH - 160 014

Prof. Harsh Nayyar
Principal Investigator

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UNDER REGISTERED POST

Ref. 1157-1161/HH/Bot

August 30, 2017

Dear Sir,

Please quote your lowest rates in DUPLICATE, for the item (s) given below as per the specifications. Your quotation should reach the undersigned on **or before 13.9.2017**.

PLANT GROWTH CHAMBER: Temperature Range 4°C to 50°C±2°C

TECHNICAL SPECIFICATIONS FOR PLANT GROWTH CHAMBER

- Plant Growth Chamber having size of 640 Cu.ft. divided in two zone 384 Cu.ft. and 256 Cu.ft.
- Temperature Range (In 384 Cu.ft.) : 4°C to 50°C±2°C.
- Relative Humidity : Upto 60% to 85% ± 5%.
- Light : Luminous Flux ranging from 350 to 400 µE/M per sq.m2/Sec.
- 60mm Puff insulated structure with 60mm thick flooring covered with 1.2mm Aluminium chequered Sheet.
- Cam lock arrangement for leak proof cabinet (Technical details must be provided).
- Chamber Should be constructed on a concrete plate form of 12' x 10' size and 1' height further provide with a Rain Shed made of Galvanised tubular structure and Bare Galvalume Sheet as cladding materials (details must be given)
- Cooling system having 18000 to 20000 BTU Cooling capacity @ 4°C room & 50°C amb. Using three phase commercial refrigeration system with HP/LP cut off and SS evaporating units and allied accessories with CFC Free refrigerant should be provided (Technical Details of refrigeration system must be provided)
- Luminous Flux ranging from 350 to 400 µE/M per sq.m2/Sec area
With Ceiling suspended Adjustable Light Bank and 1 No. of Tissue Culture Growth Rack fitted with Photosynthetically Active Radiation Lamps (T8 SMD type LED Lamp) having 2'6" Shelf to shelf distance (Total 2 Illuminating Shelves) duly powder coated frame.
- Ultra Sonic Vapour Humidifier (RH upto 85%) Ultrasonic Frequency : - 1700±40 KHz, Ceramic Disc size : Φ 20mm. Titanium Coated. Mist Generation > 900 ml/Hr. Stainless Steel enclosure with automatic water feeding arrangements and fibber filter.
- Dehumidifier for lowering of Humidity level with microprocessor controls.
- Microprocessor Photosynthesis control Panel for TEMPERATURE, HUMIDITY (Day & Night Separate) and LIGHT duly fixed in Buffer Room Area (Technical Details must be provided)
- Galvanized Benching arrangement (Height 2'6") capable to withstand a load of 500 Kgs.
- Modulated Damper Arrangement with Filter for Fresh Air / CO₂ Controlling operated electronically as per required program
- High quality ISI approved fittings with copper multi strand twisted FR Grade cable and rigid Stds. of safety with proper M.C.B. (Make L&T/Havells) with Standard LED Light Illumination in Both chamber duly fitted in IP65 enclosures.

Warranty should be minimum of two years.

The rates quoted should be **FOR Botany Department, P. U., Chandigarh. SPECIAL DISCOUNT** for educational institutions/University teaching department may be mentioned. **The technical, financial bids and EMD be enclosed in separate sealed envelopes** duly marked and placed together in a duly sealed envelope giving our reference and due date of quotation. The EMD 2% of the total cost of the equipment and DD/ Traveler cheque should be made in the name of **The Registrar, Panjab University, Chandigarh**. The Quotations should reach to **Prof. Harsh Nayyar, Principal Investigator, Department of Botany, Panjab University, Chandigarh-160 014** by due date.

Thanking you,

Yours sincerely,

(Harsh Nayyar)
Principal Investigator