LYOPHILIZER

Indent No. & Date: - CNS/2017-18/05, Dt: 30.10.2017

Centre for Nanosciences, IIT Kanpur invites quotations for LYOPHILIZER with following specifications:

- **1.** Floor Model with heavy duty castor wheels for easy movements.
- **2.** Drying chamber size: 300mm (H) x 300mm (L) x 350mm (D) made of thick gauge 304 Grade, nonmagnetic Stainless steel.

Front Door should be of thick gauge acrylic.

3. Front loading trays

No. of trays: 5 Nos Minimum

One tray should accommodate 6Nos (2 X 3 Rows) Petri dishes of 100 Dia

Loading Capacity: 30Nos at a time

Port: 8 Ports with total of 12 manifold and quick seal valves (include, 4 spare)

4. With cold trap temperature -85°C

Cold trap size: 250mm dia X 350 depth, cylindrical, made of thick Gauge 304 grade stainless steel, front panel made of acylic (visible).

5. Should be with built in Vacuum Pump: 2 stage direct drive, 323 ltrs per minute.

Vacuum Indication with Digital Pirani Gauge and pressure curve.

Vacuum Level Up to 0.001 mbar.

<u>6.</u> Instrumentation: Microprocessor based temperature controller preferably LCD Display with self-diagnostic messages for set up and operating parameters.

Sensor: PT 100

Controls: Refrigeration on/off, Vacuum on/off.

Complete SS construction with removable side panels.

Built in Cascade refrigeration system

Facility for water drain.

3/4" OD vacuum connector, three feet of 3/4" ID vacuum hose and two clamps

Side-mounted, retractable, collector drain hose

Operating Voltage: 220-240 V, 50 Hz

Optional Accessories:

Fast-Freeze 45° Adapter (Stainless Steel) 3/4" flask top to 3/4" valve 120 ml Complete Fast-Freeze Flask 3/4" flask top Adapter Diameter 240 ml Complete Fast-Freeze Flask 3/4" flask top Adapter Diameter Suitable Capacity Servo Voltage Stabilizer. Vacuum Oil 10 Liters.

General Terms and conditions:

- Quotes should have a minimum validity of 60 days
- The sealed envelopes with the quotes should be super-scribed with the Indent number
- The delivery period should be specifically stated.
- The rate offer should be free delivery to IIT Kanpur (FOR) and current of taxes as other statutory levies must be mentioned. If items are imported then the firms should quote the price on F.O.B price.
- Maximum educational discounts should be provided.
- Actual numbers of the components may be increased or decreased in the final purchase order.
- Delivery time: 4 weeks from the date of purchase order.
- Authorized agency/resale certificate must be attached by Indian representatives, if quoting items from manufacturers outside India

The quotations must reach to us latest by Nov 15th, 2017 at the following address:

Dr. Manish Kulkarni Center for Nanosciences Indian Institute of Technology Kanpur Kanpur 208016 INDIA

Email: dverma@iitk.ac.in