

DEPARTMENT OF BIOPHYSICS
PANJAB UNIVERSITY, CHANDIGARH-160014 (INDIA)

(Estt. Under the Panjab University Act VII of 1947 enacted by the Govt. of India)



Ph: 91-172-2534119

Email: chairpersonbiophysics@pu.ac.in

dhawan@pu.ac.in

Ref. No.:

Date:

Dear Sir,

Please quote your lowest rates in duplicate, should be clearly written or typed for the items (list attached), specifying make, quality, period of supply of each item along with detailed information and should reach the undersigned on **or before 22nd December, 2014.**

1. Rates quoted should be for Chandigarh.
2. The rates for insurance, excise duty, S.T. should be clearly mentioned, original receipt for the insurance charges are required along with the bill.
3. Panjab University has been exempted from paying Central Excise Duty vide Govt. of India notification No. 10/97-Central Excise dated March, 1997 and is valid up to 31. 8. 2015.
4. Special Discount for educational institutions, University teaching department may be mentioned.
5. The present rate of S.T. applicable on the articles should be clearly mentioned.
6. The quotation in a sealed envelope giving our/ your reference No./ Date of quotation should be sent after affixing the required postage stamps addressed to the Chairperson, Department Of Biophysics, BMS Block-II, Sector- 25, Panjab University, Chandigarh. The quotation should be sent by POST only (as for as possible).
7. Vendor should have supplied such instruments regularly to Govt. agencies since last 5 years.
8. Payment will be made after the installation of the equipment.

Thanking you,

Chairperson
(Prof. D.K. Dhawan)
Department of Biophysics
Panjab University
Chandigarh

LIST OF EQUIPMENTS ATTACHED:

Quantity required = 1 of each mentioned product

1. Cooling Centrifuge Machine -A

Cooling Centrifuge Machine high volume high speed with max speed 20000 RPM

- Should have LED display of set parameters
- Parameter setting through feather touch switches
- Motor should be brushless with frequency drive
- Should have auto shut down facility in case of detection of inverter fault
- The refrigerant should be CFC free
- Temp range from ambient to – 8°C
- Should have facility to set temperature and RPM by user with digital countdown timer up to at least 99 minutes or more
- Should have facility of automatic rotor identification
- Door should be provided with gas hinge for automatic opening with feature of emergency lid lock release
- Facility for Imbalance detection and auto shut off along with motor overload protection
- Maximum Speed of machine 20000 RPM
- Fixed angle rotor for
 1. 24 x 1.5 ml for speed up to 18000 or more
 2. 10 to 12 tubes of 15 ml with speed up to 18000 or more
 3. 10 to 12 50 ml tubes for speed up to 15000 or moreto be provided along with the machine
- Rust proof stainless steel inner chamber
- To work on 220 volts AC, 50 cycles
- To be supplied with suitable servo controlled stabilizer
- Two years of comprehensive warranty

2. Cooling Centrifuge Machine –B

Cooling Centrifuge Machine low volume high speed with max speed 20000 RPM

- Brush-less induction motor with frequency drive
- Precise speed control and reproducibility
- Pre setting of speed, temperature and time
- Speed holding accuracy 100 RPM
- Safety lid interlock to prevent cover opening during centrifugation
- Digital speed indicator, 0-99 minute digital countdown timer with temperature indicator
- Dynamic brake
- Imbalance detector with cut off
- Over current overheating safety cut off for motor protection
- Fixed angle rotor for
 1. 10 to 12 50 ml tubes for speed up to 15000 or more
 2. 24 x 1.5 ml for speed up to 18000 or more
 3. 10 to 12 tubes of 15 ml with speed up to 18000 or more
 4. swing out rotor for 4 x 20 ml with speed up to 11000 or moreto be provided along with the machine
- To work on 220 volts AC, 50 cycles
- To be supplied with suitable servo controlled stabilizer
- Two years of comprehensive warranty.

LIST OF EQUIPMENTS ATTACHED:

Quantity required = 1

Deep Freezer (-80 °C)

- CFC-free refrigerants
- Inner chamber should be made of Stainless Steel
- Internal Capacity should be in the range of 400-450 liters
- Five Compartments with four adjustable shelves
- Lowest attainable temperature of -80°C at the ambient temperature range of 30-32°C
- Power consumption should not be more than 13kWh/day
- Membrane Keypad eye level control panel
- Two compressors each with power efficient (low power consumption) capacity up to maximum of 1 hp
- Battery backup: Activates alarm and display during power outages
- Power consumption should not be more than 550 watt
- High low cut protection facility for both compressors
- Microprocessor based functionality
- A minimum of 5 year warranty for compressor and refrigerant
- Alarm for Power failure, high low temperature, and battery low, filter clean and fault analysis
- Alarm and temperature should be adjusted within 1 degree increments
- Inbuilt Diagnostic system
- On off switch and on off alarm should be lockable
- Password for set point security
- Access Port should be there
- One year comprehensive warranty
- CE and UL Certified