



**CENTRE FOR NANOSCIENCE &
NANOTECHNOLOGY**

(South Campus, Block-II, Sec-25)
PANJAB UNIVERSITY, CHANDIGARH-160014 (INDIA)

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Coordinator

Centre for Nanoscience & Nanotechnology E-mail: jadabs@pu.ac.in

NSNT/ 2396-2402

Date: 05/05/2016

Speed post/Registered post

Dear Sir,

Please quote Technical and Financial bid (in two separate envelops) for the supply of following items to the Coordinator, Centre for Nanoscience & Nanotechnology, Panjab University, Chandigarh as per specifications:-

Sr. No.	Name of Item(s)
1.	Specification for the Modular Laboratory Furniture (Full specifications attached as ANNEXURE – I) 1.Modular Laboratory Table L- 5560mm, W-700mm, H- 820 mm 2. Modular Laboratory Table L- 4400mm, W-700mm, H- 820 mm 3. Modular Laboratory Table – A: L- 1050 mm, W-600 mm, H- 820 mm B: L- 1250 mm, W-750 mm, H- 820 mm 4.Fume Hood: L-1100mm, W-750 mm, H – 2500 mm. 5.Partition and Ceiling Work: Partition and False ceiling with LED light panels and exhaust fans.

The quotations must reach in a sealed cover by **17.5.2016 at 5.00 p.m.** along with your other terms and conditions of supply, if any.

LAST DATE OF RECEIPT OF QUOTATIONS 17.5.2016 AT 5.00 P.M.

OPENING OF QUOTATIONS: 18.5.2016 AT 3.30 P.M.

Note:- The quotation must reach by Hand or Registered Post or Speed Post on or before **17.5.2016 at 5.00 p.m.** to the following address.

**The Coordinator,
Centre for Nanoscience and Nanotechnology, Panjab University,
Science Block-II, Sector – 25, University South Campus
Chandigarh-160014**

Coordinator
Centre for Nanoscience & Nanotechnology
U.I.E.A.S.T.
Panjab University, Chandigarh.

Contd.....2.

1. **MOST IMPORTANT:** The Bidders are requested to attach the EMD Demand Draft total value of 2% of the quotation/proforma Invoice in the name of 'The Coordinator, Centre for Nanoscience & Nanotechnology, Panjab University, Chandigarh', without EMD Draft quotation/proforma invoice will not be entertained.
2. Please quote Technical and Financial bid (in two separate envelopes) with EMD.
3. Panjab University, does not take any responsibility for any postal delay in delivery by Registered/Speed Post or lost in transit of quotation.
4. We have been exempted from paying Central Excise Duty vide Govt. of India notification No. 10/97-Central Excise dated March, 1997 and is valid upto 31.8.2020.
5. Rate should be quoted both in words and figures in **financial bid only**.
6. Conditional and unsigned quotation will not be accepted.
7. The supply be commenced/made within 15 days of the issue of supply order.
8. All quoted rates should be FOR Panjab University and firm should quote the rate of all taxes.
9. No payment will be made on the Performa invoice.
10. The quotation shall not contain corrections, erasers and overwritten.
11. The undersigned reserves right to accept or reject any quotation without assigning any reason.
12. Special Discount for educational institutions, University teaching department may be mentioned.
13. Quotations will be opened on **18.05.2016 at 03.30 p.m.** and you may depute your representative at the time of opening of quotations.
14. The quotation (Technical & Financial bid with EMD) in a sealed envelope giving our/ your reference No./ Date of quotation should be sent after affixing the required postage stamps. The quotation may sent by POST (as far as possible)/BY HAND.

A. Technical Specifications

Specification		Yes/No
Sr. No.	Name of Item(s)	
1.	Specification for the Modular Laboratory Furniture (Full specifications attached as ANNEXURE – I) 1.Modular Laboratory Table L- 5560mm, W-700mm, H- 820 mm 2. Modular Laboratory Table L- 4400mm, W-700mm, H- 820 mm 3. Modular Laboratory Table – A: L- 1050 mm, W-600 mm, H- 820 mm B: L- 1250 mm, W-750 mm, H- 820 mm 4.Fume Hood: L-1100mm, W-750 mm, H – 2500 mm. 5.Partition and Ceiling Work: Partition and False ceiling with LED light panels and exhaust fans.	

Thanking you,

Yours Sincerely


Coordinator
Centre for Nanoscience & Nanotechnology
U.I.E.A.S.T.
Panjab University, Chandigarh.

Coordinator, Centre for Nanoscience & Nanotechnology

Annexure- 1

TECHNICAL SPECIFICATIONS FOR THE MODULAR LABORATORY FURNITURE

(CNSNT/RL-4)

Item Number-1

Modular Laboratory Table

Total Length (L): 5560 mm, Width (W): 700 mm, Height (H): 820 mm

(Total leg spaces should not exceed three (3) persons, remaining space should be provided with storage cabinets)

Detail Specification: Storage cabinets of lab table shall be provided with locking facility. The body of storage cabinet should be made of (minimum of 0.8 mm thick or higher) 22 G grade (or better) CRCA MS sheet having double side walls and door should be of minimum of 15 mm thick with square edges made of (minimum of 1 mm thick or higher) 22 G grade (or better) CRCA MS sheet. The swing doors should be affixed with steel hinges. Every drawer and cabinet must be provided with SS D-Cup handle (PVC recessed). The size of the drawer should not be lower than 450 mm (L) X 600 mm (W) X 180 (H) mm. The size of the storage cabinet should not be lower than 450 mm (L) x 600 mm (W) x 480 mm (H). Top of the lab table shall be in black granite supported underneath with 11 mm thick water proof and pest (termite) resistant BWR/wooden ply. All the sharp corner edges of the granite should be rounded off and polished. The complete MS materials of laboratory table must be pre-treated and epoxy powder coated for better corrosion resistant. Thickness of the powder coating should be of 45 micron (minimum) or better. Documental evidence of the above requirements should be provided at the time of delivery. Any type of civil work (lay down of inlet and outlet) or pipe-line provision should be provided at the time of installation with no extra cost by the vendor according to the customer satisfaction.

The entire table work can be divided in to 5 segments and can be supplied as five separate modular tables according to the size mentioned below or as per the factory settings.

Modular Table – Type 1

Size: Length (L) - 1160 mm, Width (W) - 700 mm, Height (H) - 820 mm

Quantity required: 1 (One) No

Modular Table – Type 2

Size: Length (L) - 1100 mm, Width (W) - 700 mm, Height (H) - 820 mm

Quantity required: 4 (four) Nos

Item Number-2

Modular Laboratory Table

Total Length (L): 4400 mm, Width (W): 600 mm, Height (H): 820 mm

(Total leg spaces should not exceed two (2) persons, remaining space should be provided with storage cabinets)

Detail Specification: Storage cabinets of lab table shall be provided with locking facility. The body of storage cabinet should be made of (minimum of 0.8 mm thick or higher) 22 G grade (or better) CRCA MS sheet having double side walls and door should be of minimum of 15 mm thick with square edges made of (minimum of 1 mm thick or higher) 22 G grade (or better) CRCA MS sheet. The swing doors should be affixed with steel hinges. Every drawer and cabinet must be provided with SS D-Cup handle (PVC recessed). The size of the drawer should not be lower than 450 mm (L) X 550 mm (W) X 180 (H) mm. The size of the storage cabinet should not be lower than 450 mm (L) x 550 mm (W) x 480 mm (H). Top of the lab table shall be in black granite supported underneath with 11 mm thick water proof and pest (termite) resistant BWR/wooden ply. All the sharp corner edges of the granite should be rounded off and polished. The complete MS materials of laboratory table must be pre-treated and epoxy powder coated for better corrosion resistant. Thickness of the powder coating should be of 45 micron (minimum) or better. Documental evidence of the above requirements should be provided at the time of delivery. Any type of civil work (lay down of inlet and outlet) or pipe-line provision should be provided at the time of installation with no extra cost by the vendor according to the customer satisfaction.

The entire table work can be divided in to 4 segments and can be supplied as four separate modular tables according to the size mentioned below or as per the factory settings.

Modular Table

Size: Length (L) - 1100 mm, Width (W) - 600 mm, Height (H) - 820 mm

Quantity required: 4 (four) Nos

Item Number-3

Modular Laboratory Table

Modular Table-A

Size: Length (L) - 1050 mm, Width (W) - 600 mm, Height (H) - 820 mm

Quantity required: 1 (one) No

Modular Table-B

Size: Length (L) - 1250 mm, Width (W) - 750 mm, Height (H) - 820 mm

Quantity required: 1 (one) No

Wall mounting of size: 900 mm (L) x 680 mm (H) x 350 mm (W). Front side made of (70 %) toughened glass.

Quantity required: 4 (four) Nos

Detail Specifications for Modular Table A & B: Storage cabinets of lab table shall be provided with locking facility. The body of storage cabinet should be made of (minimum of 0.8 mm thick or higher) 22 G grade (or better) CRCA MS sheet having double side walls and door should be of minimum of 15 mm thick with square edges made of (minimum of 1 mm thick or higher) 22 G grade (or better) CRCA MS sheet. The swing doors should be affixed with steel hinges. Every drawer and cabinet must be provided with SS D-Cup handle (PVC recessed). The size of the drawer should not be lower than (A) 450 mm (L) X 550 mm (W) X 180 (H) mm; (B) 450 mm (L) X 650 mm (W) X 180 (H) mm. The size of the storage cabinet should not be lower than 450 mm (L) x 550 mm (W) x 480 mm (H).

Top of the lab table shall be in black granite supported underneath with 11 mm thick water proof and pest (termite) resistant BWR/wooden ply. All the sharp corner edges of the granite should be rounded off and polished. The complete MS materials of laboratory table must be pre-treated and epoxy powder coated for better corrosion resistant. Thickness of the powder coating should be of 45 micron (minimum) or better. Documental evidence of the above requirements should be provided at the time of delivery. Any type of civil work (lay down of inlet and outlet) or pipe-line provision should be provided at the time of installation with no extra cost by the vendor according to the customer satisfaction.

The entire table work can be divided in to 4 segments and can be supplied as four separate modular tables according to the size mentioned below or as per the factory settings.

Detail specifications for wall mounting units: Storage cabinets should be provided with locking facility. The body of storage cabinet should be made of (minimum of 0.8 mm thick or higher) 22 G grade (or better) CRCA MS sheet having double side walls and door should be of minimum of 15 mm thick with square edges made of (minimum of 1 mm thick or higher) 22 G grade (or better) CRCA MS sheet. The swing doors should be affixed with steel hinges. Front side made of (70 %) toughened glass.

Item Number - 4:

Fume Hood

Fume Hood Size

Minimum of Length (L) - 1100 mm, Width (W) - 750 mm, Height (H) - 2500 mm. Working bench height (H) - 820 mm. Total working area should not be lower than the dimension of 1000 mm x 650 mm. Total height should be of 2500 mm or as per company standard but not exceeding 2600 mm.

Quantity Required: 1 (One)

Detail Specification:

Construction: Fume hood should ensure a semi closed ventilated enclosures so that the user is effectively shielded/protected from harmful and toxic fumes and toxic vapors during experiments. Fume hood should ensure constant air suction face velocity (80 feet – 100 feet per minute) to eliminate the possibility of accidental fire, which may occur due to the emission of inflammable gases during the course of experiment/procedures.

The body/cabinet is made of mild steel or stainless steel having working table of heavy gauge construction material fortified with acid proof glazed tiles/stone. The working table is provided with a small sink made of SS 304. Fume hood is provided with sliding sash made of shatter proof glass (toughened glass panels with customer satisfaction) duly framed with aluminum frame with sliding motion and counter weight balanced mechanism.

Requirements: Fume hood should ensure approximate 800 lux of illumination on the working table. The fume hood should be equipped with very diligent heavy duty exhaust system, comprising of dynamically balanced centrifugal impeller with high speed motor of approximate 1440 RPM (3 Phase)

Air Velocity: Fume hood ensures that the optimum face velocity of 80 feet – 100 feet per minute is maintained with an accuracy of +10 feet/minute with sash in complete open position

Volume of Exhaust: Fume hood capable of maintaining a constant exhaust volume. The maximum variation permissible in house test procedure is 6%.

Testing Procedures: Fume hood conforms to British standards of testing performance of chemical hoods.

Pressure: Fume hood should be designed to minimize the loss of static pressure at a given baffle opening position.

Illumination Level: fume hood ensures approximate 800 Lux of illumination on the working table.

Noise/Sound: Fume hood should be designed to generate lower noise level (60 db or less) at 1 feet distance from the sash.

Exhaust Assembly: Fume hood is provided with very strong and high end exhaust system having range of 500 – 1250 CFM. The exhaust assembly consists of dynamically balanced centrifugal impellers which are coupled with heavy duty three phase motor

Annexure-1

Exhaust Ducting: Fume hood should be provided with suitable FRP ducting.

Any part which is made of mild steel should be appropriately treated (powder coated) for effectively corrosion resistance.

Utility: Provisions shall be made for Nitrogen/Argon, Vacuum line, and water with control valves fixed in the front of end panels on the exterior of the hood. The valve shall have color coded plastic handles.

Electric Services: The hood superstructure shall be pre-wired and contain wire gauge, connections, fixtures and wire color coding. Wiring electrical accessories shall consist of 2 duplex receptacles and a light switch. 4 nos. of 5/15 Amp, 250 Volt AC, and 3-Wire polarized grounded with ground fault interruption. All civil and electrical work to be done by the service provider.

Item Number - 5:

Partition and Ceiling work: Partition and False ceiling with LED light panels and exhaust fans.

Specification: Supply of ceiling sheets made of mineral fibre (600 x 600 x 15) tiles (or eco phone glass wool tiles or better) along with appropriate metal grid frames (as per standard with minimum 24 mm T grid, metal/aluminum) for approximate area of 415 square feet.

LED light panels: 36 watt led grid panels (quantity- 4 Nos), 12 watt led panels (quantity- 4 Nos),

Exhaust fans: Ceiling (mild and noiseless exhaust) fans with appropriate ducts for inlet and outlet air flow (quantity- 4 Nos).

Partition work: Supply of following items.

Specification: Partition work (approximate area of 135 square feet) made of white bison cement sheet (minimum 6 mm or better) with a sliding door (approximate area of 35 square feet) made of glass (minimum of 5 mm glass or better) along with GI metal floor and studs. Middle part of the partition should contain a glass window with 5 mm glass or better.

Ultraviolet light and heat absorption rolling layers for an approximate area of 100 square feet. All civil (including painting) and electrical work to be done by the service provider with customer satisfaction.