नागालैण्ड विश्वविद्यालय

NAGALAND UNIVERSITY

(संसद द्वारा पारित अधिनियम 1989, क्रमांक 35 के अंतर्गत स्थापित केंद्रीय विश्वविद्यालय)
(A Central University established by an Act of Parliament No.35 of 1989)
मुख्यालय : लुमामी, जिला : जुन्हेबोटो (नागालैण्ड), पिनकोड – 798627
Hqrs : Lumami, Dist. Zunheboto (Nagaland), Pin Code – 798627
वेबसाइट / Website : www.nagalanduniversity.ac.in

NU/ADMN/B-23/05 Part file -

Dated: 7th March 2025

Short Tender Notice

Sealed tender bids (***Technical & Financial***) are invited for the setting up of Modular Laboratories in the department of Physics at Nagaland University, Lumami. Interested authorized dealers/firms may download the tender details and documents from the University website: nagalanduniversity.ac.in and submit their quotations along with a tender fee of Rs. 1000/- (non-refundable) through ***SBI collect*** in favour of Nagaland University.

The Technical bid and the financial bid should be sealed by the bidder in separate envelopes duly super-scribed as "Technical Bid" and "Financial Bid". Both the envelopes are to be put up in bigger cover which should also be sealed and duly super-scribed "Tender for setup of Modular Laboratories" with Tender Notice Number and Date. The tender must be addressed to the undersigned and should be submitted on or before ~~17th Mar.'25~~, during office working hours.

No tender shall be accepted beyond this date and time.

07-03-25

(Dr. Abemo)
Registrar
Dated: 7th March 2025

NU/ADMN/B-23/05 Part file - 7165

Copy to:

1. The Finance Officer, NU, Lumami.
2. The System Administrator, NU, Lumami, with a request to upload in the University website.
3. The Editor, Nagaland Post, Dimapur, with a request to publish in the next daily issue (size 6cm x 8cm). Bills in Triplicate should be submitted for payment. It is one-time publication.
4. The Editor, Arihant Advertising Agency, S.R.C.B. Road, Fancy Bazar, Guwahati-781001, with a request to publish in the Indian Express (Kolkata) (size 6cm x 8cm). Bills in Triplicate should be submitted for payment. It is one-time publication.
5. Office copy.

07-03-25

(Dr. Abemo)
Registrar

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TERMS & CONDITIONS:

Sl. No.	Document Required	Details
1.	Bidder financial standing:	The bidder should not be under liquidation; court receivership or similar proceedings; should not be bankrupt. Bidder to upload undertaking to this effect with their bid.
2.	GST	Bidders are advised to check applicable GST on their own before quoting. The buyer will not take any responsibility in this regard. GST reimbursement will be as per actual or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %
3.	Product Market life	Bidders should quote only those products in the bid which are not obsolete in the market and have at least 5 years' residual market life i.e., the offered product shall not be declared end-of-life by the OEM before this period.
4.	Experience Criteria:	The Bidder or its OEM should have regularly manufactured and supplied same or similar Category Products to any Central/State Govt Organization/PSU/Public Listed Company for 3 years before the bid opening date. Copies of relevant contracts to be submitted along with the bid in support of having supplied some quantity during each of the year. In the case of bunch bids, the primary product having the highest value should meet this criterion.
5.	Contact no	Dedicated/toll Free Telephone No. for Service Support: BIDDER/OEM must have Dedicated/toll Free Telephone No. for Service Support/local office.
6.	Escalation Matrix	Escalation Matrix for Service Support: Bidder/OEM must provide Escalation Matrix of Telephone Numbers for Service Support.
7.	Acceptance	Bidder's offer is liable to be rejected if they don't furnish any of the certificates/documents sought in the Bid document, ATC and Corrigendum if any.
8.	Certificates	ISO 9001: The bidder or the OEM of the offered products must have ISO 9001 certification.
9.		To be eligible for award of contract, Bidder/OEM must furnish the following Compliance Certificates/Test Reports: Valid BIFMA, SEFA 8M & SEFA 10, GREEN GUARD, CE, ASHRAE, EN13150 and EN14727 Compliance Certificates. ISO 14001, 45001, 50001.
10.		Powder Coating test reports from any NABL accredited central government lab to be furnished against the following tests: (i) Salt spray test (ASTM B117) (ii) Gloss (iii) Bend Test (iv) Pencil hardness test (v) Impact resistance test (vi) Cross hatch adhesion test

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		(vii) Dry film thickness test OEM should have conducted the test reports in the last 6 months from bid opening date.
11.	Warranty	The warranty period of the supplied products shall be 5 years from the date of final acceptance of goods or after completion of installation, commissioning & testing of goods (if included in the scope of supply) respectively, at consignee location. OEM Warranty certificates must be submitted by Successful Bidder at the time of delivery of Goods. The seller should guarantee the rectification of goods in case of any breakdown during the guarantee period. Seller should have well established Installation, Commissioning, Training, Troubleshooting and Maintenance Service group in INDIA for attending the after sales service.
12.	Experience	Bidder/OEM must submit at least one Purchase Order copy of similar laboratory furniture works only issued by a Central/State Govt Organization/PSU/Public Listed Company in its name, amounting not less than 80% of the bid estimated value. Along with proper valid proof of project completion.
13.	Turnover Certificate	Bidder/OEM must have the minimum average annual turnover of the last 3 financial years as per bid document. Turnover Certificate should be having UDIN number approved by CA.
14.	Service Centre	Bidder must submit valid proof of a Service Centre/local office in the consignee state with proper GST Registered address.
15.	Product Quality assessment	One perfectly sized Epoxy powder coated 300 mm Length 300 mm Width X 1.2 mm thickness product piece With UV film coating on top, laser cut, laser printed with Institute Logo imprinted should reach the consignee location on or before bid closing date.
16.	EMD	Bidder Must Submit EMD @ 2% of the quoted price.
17.	ITR	Bidder/OEM must submit ITR for the last 3 financial years.
18.	GST	Bidder/OEM must submit a valid GSTIN certificate along with GST return of last quarter.
19.	Balance sheet	Bidder/OEM must submit audited balance sheet of last financial year.
20.	EPF	EPF mandate or undertaking to be submitted by Bidder/ OEM.
21.	ESIC	ESIC or undertaking to be submitted by Bidder/OEM.
22.	Net Worth	Positive Net Worth Certificate issued by CA to be submitted by Bidder/OEM.

TERMS OF PAYMENT:

100% payment after the successful delivery and installation of the items.

10-03-25

Sl. No. ..... Challan No..... Date.....

Name of the Firm : ..... Contact No.....

FINANCIAL BID

Financial Bid for Supply and installation of Modular Laboratory vide Advertisement No..... dated.....

A	B	C	D	E	F	G	H
Sl. No.	**Items**	**Model No.**	**Design**	**Quantity**	**Rate per Item.**	**GST %**	**Amount [E *(F + G)]**
A	**B**	**C**	**D**	**E**	**F**	**G**	**H**
Sl. No.	**Items**	**Model No.**	**Design**	**Quantity**	**Rate per Item.**	**GST %**	**Amount [E *(F + G)]**

Sl. No. ..... Challan No..... Date.....

Name of the Firm : ..... Contact No.....

TECHNICAL BID

Technical Bid for Supply and installation of Modular Laboratory **vide Advertisement No.....dated.....**

Sl. No.	Items	Make/Brand	Model No.	Material	Dimensions	Design

W1 ROOM CHEMISTR Y LAB		
Sl No	Item Description & Specification	Qty
1	Supply and Instalaltion of Wall bench(5000-5422mmW*750mmD*900mmH) with Storage cabinet, Reagent Shelves and Sink Unit As per physical dimension of the space	1
2	Supply and Instalalton of Wall Bench 1(3320mmW*750mmD*900mmH))joined with wall bench 2(1225mmW*750mmD*900mmH) by a corner unit with Storage cabinet, Reagent Shelves and Sink Unit As per physical dimension of the space	1
3	Supply and Instalaltion of Wall bench(2240mmW*750mmD* 900mmH) with Storage cabinet,Reagent Shelves As per physical dimension of the space	1
	D-FRAME SYSTEM: All D-Frames assemblies should be manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1973(Indian Standard specification for steel tubes for furniture) and all sheet metal components should be of CRCA confirming to IS Code 513:1994. The suspended under-bench welded units should be supported on heavy-duty steel frames fully carrying the load of worktops. Its superior strength combined with aesthetically appealing end caps shall give maximum flexibility and modularity while making a layout. D-frame should be constructed from a rectangular pipe with a cross section of 30mmx30mm and should be a minimum 1.6 mm thick. The D-frame legs should be supplied with adjustable feet (tolerance from-5mm to+20mm) to correct the unevenness of flooring. The tubular enclosed type construction shall discourage dust accumulation and unwanted development of bacteria & fungus. Drainage gradient should be well adjusted throughout the length of table and should have horizontal supports for drainage systems··· It should be suitable for sitting and standing nominal heights of 750mm& 900mm respectively. The nominal table depths should be 750 mm forwall side. The Corner Units shall fit well with 770mm& 920mm table depths. All frame-work is should be pre-treated with superior pure epoxy powder coated finish. The D-Frames should be for suspended storage cabinets	
	HORIZONTAL MEMBERS:These should be made from rectangular pipes of2mm thickness Cross-sectional dimensions of the pipe should be 30x30mm with a minimum of 1.6 mm. They should be made of CRCA MS and coated with pure epoxy powder. These connect two D-Frames together as shown using C-clamps/U-clamps. Together with the D-Frames and Horizontal Members connected together, the skeletal structure of the work-bench is formed on which the worktop can be placed and the hanging-type storage cabinets can be suspended. Horizontal Members determine the width of the lab workbench as they form the member(distance) between two adjacent D-Frames.They should be available in various widths of 450,600, 900, 1050,1200, 1350, 1500 1650, and 1800	
	COVER PANELS:All side cover panels and back panels, filler panels should be made from CRCA MS panels of minimum 0.8mm thickness with pure epoxy powder coatng	

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	REAGENT SHELVES: Fixed-Type reagent shelves should be provided It should be complete modular design consisting of 2 stage horizontal storage shelves made of minimum 1.2 mm thick frame. CRCA MS with pure epoxy powder coating and having cutouts for electrical switches and sockets. It should have provision for placing Granite pieces (as per requirement in BOQ)	
	WELDED UNDER-BENCH STORAGE CABINETS: Under bench cabinets are Pure epoxy powder coated with thickness of 40-60 microns and are suspended from tubular structure, with an overlay shutter.The cabinet has a corrosion resistance magnetic strip as shutter catch,shutter and drawer are equipped with 180 degree cam lock.Semi recessed handle and SS-304 five knuckle overlay hinge with 270 degree opening Unit Construction: Welded body with load bearng members such as top,bottom and stiffeners should have a minimum thickness of 08mm and drawer separator is 1.2mm thick Shelf: is made of 0.8mm thickness which is adjustable to 6 steps of 50mm.Shutter is over-closing with 270 degree opening.It has a sandwich construction with profil as a sound dampner Drawer: Welded filled with profil as sound dampner Single piece construction with an over closing drawer	
	Polypropylene Molded Sinks: Made up of 5mm thick high density and elastic poly propylene with good resistance to organic solvents.Standard bowl size (LxWxD) is 500 x 400x300 mm. Faucet should be 1-way type faucet of approved make	
	Granite Top: It should be 16mm (+/-2mm) thick Jet Black Granite worktop.The exposed edges of the worktop should be chamfered and smoothened. The bottom of the worktop should be polished and there should be a V-groove throughout the length of the exposed edges to protect the cabinets from coming in contact with the spillages. The overhang on the storage cabinet is 25 mm at the front side and 30 mm at the sides. The backing material used is a neoprene mat of 6 mm thickness	
4	Supply and Instalaltion of Fumehood with accessories As per physical dimension of the space	1
	Superstructure Frame -It should be a free-standing rigid panel structure of steel (G.1.)	

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	Interior Walls - Double wall ends, not more than 6" wide, should be provided to maximize interior working area. The area between the double wall ends should be closed to house the remote control valves. Cut-outs should be provided inside the fume hood for service line accessibility. The same to have a cover with a fastener free design. The vertical fascias shall contain the required service controls, electrical switches and receptacles.	
	Airfoil - A streamlined airfoil should be integral at the bottom of the hood opening on bench and distillation hoods. This foil shall provide a nominal 20mm open space between the foil and the top front edge of the work surface to direct an air stream across the work surface to prevent back flow of air. The sash should be provided with a separate handle which also provides for air flow when in completely closed position. The foil should be of 1.2mm steel to resist denting and flexing.	
	Baffles - A stable, non-adjustable baffle with a single slot on the back baffle to aid in distributing the flow of air into and through the hood. The baffle should be spaced out from the back liner and should be removable for cleaning	
	Duct Collar - A 8"-10" diameter polyethylene funnel shaped rectangular duct collar should be located in the top of the hood plenum chamber.	
	Lighting- Two CFL tubes of 40 watts each should be provided in the fume hood. The lighting fixture should be completely outside the fume hood area.	
	Sash - A combination sash should be provided. The sash should have horizontal sliding glass panels in a vertical rising steel frame. The bottom of the sash frame should have a full length metal handle. The sash track has minimum protrusion to avoid any kind of turbulence. The sash should be counterbalanced with a weights to prevent tilting and binding during operation. The glass panels should be 5mm toughened glass mounted in an levelled channel with roller for smooth operation.	
	Plumbing Services - Utility services like Vacuum, Nitrogen, Compressed Air & Raw water (as per Schedule of Quantity) shall consist of remote control valves as selected located within the end panels, controlled by in and out facility with flexible hose passing through the side panels of the hood, with color coded plastic handles. Interior fitting for gases and water should be with powder coated brass. All gas valves for regular lab gases to have standard needle valve and push and turn type arrangement for all burning gases should be supplied. All supplied valves to clear the following pressure test conditions: Gas Fittings – 7 bar, Water fittings – 10 bar.	
	Electrical Services – The hood superstructure should be fully wired and should have a control box with MCB blower starter all safety devices like trip etc. Inlet should be of 3 phase power supply and the whole electrical should be of plug and play type. It also has 4 nos. electrical sockets and switches of Northwest make (230V, 5/16 A, 50 Hz)	
	Liner – Interior liner panels should be 6 mm thick Phenol resin based industrial laminate.	
	Lattice Rod Assemblies - 12mm dia solid SS rods should be clamped with the PP clamps to form a lattice arrangement to hold the test samples and rotors within the fume hood.	

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	Centrifugal Blower- Silent high effciency remote blower consisting of continuous rating motor and chemical resistant impellar. The blower should be designed to give a face velocity at safe working height as per the international safe velocity norms. (ANSI/AIHA Z9.5). The blower body should be polypropylene UV treated, high density and chemical (corrosion) resistant and mounted on a metallic stand.	
	Ducting-Rigid Ducting of PP (Polypropylene)+FRP(Fibre Reinforced Polyester) and flexible ducting with flanges, bends, damper transitions, clamps etc. Flexible joint should be provided in the ducting in order to avoid transmitting the blower vibrations to the hood. A weather proof rain cowl is provided at the outlet of blower	
	Base Cabinets-Fume hoods are designed to rest on a bench (high base stand, pedestal or a cabinet) which is a complete rigid steel structure. Gauge of steel used in its construction should be 0.8 mm GI for apparatus storages. An FRV mould should be inserted inside the cabinet wherever acid storages are required (as per BOQ requirement).	
	Ceiling Enclosures - Use to enclose space between front top and ceiling of Concept fume hood superstructure also provides enclosure for raised sash.	
	Transition-Used to connect fume hood with ducting. They are designed to reduce the static pressure and are made up of Poly-propylene of 6mm thickness.	
	Work Surface -Standard hood work surface should be 18mm thickjet black granite made in the form of a watertight pan, not less than 7mm deep to contain spillage. Worktop will have oval shaped 102 mm X175 mm 'PP'Cup-Sink for drainage. Top should be manufactured at the same manufacturing location as the fume hood to assure proper cut-out alignment and coordinated shipping. The work surface and cup drain should be available in black.	

W2 ROOM CHEMISTRY LAB		
Sl No	Item Description & Specification	Qty
5	Supply and Instalaltion of Wall bench(5600-6172mmW*750mmD*900mmH) with Storage cabinet, Reagent Shelves Unit As per physical dimension of the space (Separated by a Pillar)	1
6	Supply and Instalaltion of Wall Bench 1(2920mmW*750mmD*900mmH) joined with wall bench 2(2469mmW*750mmD*900mmH) with Storage cabinet, Reagent Shelves and Sink Unit As per physical dimension of the space	1
7	Supply and Instalaltion of Wall bench(2171mmW*750mmD* 900mmH) with Storage cabinet, Reagent Shelves As per physical dimension of the space	1

10-03-25

	D-FRAME SYSTEM: All D-Frames assemblies should be manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1973 (Indian Standard specification for steel tubes for furniture) and all sheet metal components should be of CRCA confirming to IS Code 513:1994. *The suspended under-bench welded units should be supported on heavy-duty steel frames fully carrying the load of worktops. Its superior strength combined with aesthetically appealing end caps shall give maximum flexibility and modularity while making a layout. D-frame should be constructed from a rectangular pipe with a cross section of 30mm x 30mm and should be a minimum 1.6 mm thick. The D-frame legs should be supplied with adjustable feet (tolerance from -5mm to +20mm) to correct the unevenness of flooring. The tubular enclosed type construction shall discourage dust accumulation and unwanted development of bacteria & fungus.* *Drainage gradient should be well adjusted throughout the length of table and should have horizontal supports for drainage systems... It should be suitable for sitting and standing nominal heights of 750mm & 900mm respectively. The nominal table depths should be 750 mm for wall side. The Corner Units shall fit well with 770mm & 920mm table depths. All frame-work is should be pre-treated with superior pure epoxy powder coated finish.* *The D-Frames should be for suspended storage cabinets*	
	HORIZONTAL MEMBERS : These should be made from rectangular pipes of 2mm thickness. Cross-sectional dimensions of the pipe should be 30 x 30mm with a minimum of 1.6 mm. They should be made of CRCA MS and coated with pure epoxy powder. These connect two D-Frames together as shown using C-clamps/U-clamps. Together with the D-Frames and Horizontal Members connected together, the skeletal structure of the work-bench is formed on which the worktop can be placed and the hanging-type storage cabinets can be suspended. Horizontal Members determine the width of the lab workbench as they form the member (distance) between two adjacent D-Frames. They should be available in various widths of 450,600, 900, 1050, 1200, 1350, 1500, 1650, and 1800	
	COVER PANELS : All side cover panels and back panels, filler panels should be made from CRCA MS panels of minimum 0.8mm thickness with pure epoxy powder coating	
	REAGENT SHELVES: Fixed-Type reagent shelves should be provided. It should be complete modular design consisting of 2 stage horizontal storage shelves made of minimum 1.2 mm thick frame. CRCA MS with pure epoxy powder coating and having cutouts for electrical switches and sockets. It should have provision for placing Granite pieces (as per requirement in BOQ)	

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	WELDED UNDER-BENCH STORAGE CABINETS: Under bench cabinets are Pure epoxy powder coated with thickness of 40-60 microns and are suspended from tubular structure,with an overlay shutter.The cabinet has a corrosion resistance magnetic strip as shutter catch,shutter and drawer are equipped with 180 degree cam lock.Semi recessed handle and SS-304 five knuckle overlay hinge with 270 degree opening Unit Construction: Welded body with load bearing members such as top,bottom and stiffeners should have a minimum thickness of 0.8mm and drawer separator is 1.2mm thick. Shelf: is made of 0.8mm thickness which is adjustable to 6 steps of 50mm.Shutter is over-closing with 270 degree opening.It has a sandwich construction with profil as a sound dampner. Drawer: Welded filled with profil as sound dampner Single piece construction with an over closing drawer	
	Polypropylene Molded Sinks: Made up of5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Standard bowl size (LxWxD) is 500 x 400x300 mm.Faucet should be 1-way type faucet of approved make	
	Granite Top:It should be 16mm (+/-2mm) thick Jet Black Granite worktop.The exposed edges of the worktop should be chamfered and smoothened. The bottom of the worktop should be polished and there should be a V-groove throughout the length of the exposed edges to protect the cabinets from coming in contact with the spillages. The overhang on the storage cabinet is 25 mm at the front side and 30 mm at the sides. The backing material used is a neoprene mat of 6mm thickness	
8	Supply and Instalaltion of Fumehood with accessories As per physical dimension of the space	1
	Superstructure Frame-It should be a free-standing rigid panel structure of steel (G.1.)	
	Interior Walls -Double wall ends, not more than 6"wide, should be provided to maximize interior working area. The area between the double wall ends should be closed to house the remote control valves. Cut-outs should be provided inside the fume hood for service line accessibility. The same to have a cover with a fastener free design. The vertical fascias shall contain the required service controls, electrical switches and receptacles.	

10-03-25

	Airfoil - A streamlined airfoil should be integral at the bottom of the hood opening on bench and distillation hoods. This foil shall provide a nominal 20mm open space between the foil and the top front edge of the work surface to direct an air stream across the work surface to prevent back flow of air. The sash should be provided with a separate handle which also provides for air flow when in completely closed position. The foil should be of 1.2mm steel to resist denting and flexing.	
	Baffles - A stable, non-adjustable baffle with a single slot on the back baffle to aid in distributing the flow of air into and through the hood. The baffle should be spaced out from the back liner and should be removable for cleaning	
	Duct Collar - A 8"-10" diameter polyethylene funnel shaped rectangular duct collar should be located in the top of the hood plenum chamber.	
	Lighting- Two CFL tubes of 40 watts each should be provided in the fume hood. The lighting fixture should be completely outside the fume hood area.	
	Sash - A combination sash should be provided. The sash should have horizontal sliding glass panels in a vertical rising steel frame. The bottom of the sash frame should have a full length metal handle. The sash track has minimum protrusion to avoid any kind of turbulence. The sash should be counterbalanced with a weights to prevent tilting and binding during operation. The glass panels should be 5mm toughened glass mounted in an levelled channel with roller for smooth operation.	
	Plumbing Services - Utility services like Vacuum, Nitrogen, Compressed Air & Raw water (as per Schedule of Quantity) shall consist of remote control valves as selected located within the end panels, controlled by in and out facility with flexible hose passing through the side panels of the hood, with color coded plastic handles. Interior fitting for gases and water should be with powder coated brass. All gas valves for regular lab gases to have standard needle valve and push and turn type arrangement for all burning gases should be supplied. All supplied valves to clear the following pressure test conditions: Gas Fittings – 7 bar, Water fittings – 10 bar.	
	Electrical Services – The hood superstructure should be fully wired and should have a control box with MCB blower starter all safety devices like trip etc. Inlet should be of 3 phase power supply and the whole electrical should be of plug and play type. It also has 4 nos. electrical sockets and switches of Northwest make (230V, 5/16 A, 50 Hz)	
	Liner – Interior liner panels should be 6 mm thick Phenol resin based industrial laminate.	
	Lattice Rod Assemblies - 12mm dia solid SS rods should be clamped with the PP clamps to form a lattice arrangement to hold the test samples and rotors within the fume hood.	
	Centrifugal Blower – Silent high efficiency remote blower consisting of continuous rating motor and chemical resistant impellar. The blower should be designed to give a face velocity at safe working height as per the international safe velocity norms. (ANSI/AIHA Z9.5). The blower body should be polypropylene UV treated, high density and chemical (corrosion) resistant and mounted on a metallic stand.	

10-03-25

	Ducting-Rigid Ducting of PP (Polypropylene)+ FRP(Fibre Reinforced Polyester) and flexible ductng with flanges, bends,damper transitions damps etc.Flexible joint should be provided in the ducting in order to avoid transmitting the blower vibrations to the hood. A weather proof rain cowl is provided at the outlet of blower	
	Base Cabinets-Fume hoods are designed to rest on a bench (high base stand, pedestal or a cabinet) which is a complete rigid steel structure. Gauge of steel used in its construction should be 0.8 mm GI for apparatus storages.An FRV mould should be inserted inside the cabinet wherever acid storages are required (as per BOQ requirement).	
	Ceiling Enclosures - Use to enclose space between front top and ceiling of Concept fume hood superstructure also provides enclosure for raised sash.	
	Transition-Used to connect fume hood with ducting. They are designed to reduce the static pressure and are made up of Poly-propylene of 6 mm thickness.	
	Work Surface- Standard hood work surface should be 18mm thick jet black granite made in the form of awatertight pan, not less than 7mm deep to contain spillage.Worktop will have oval shaped 102 mmX175 mm 'PP'Cup-Sink for drainage. Top should be manufactured at the same manufacturing location as the fume hood to assure proper cut-out alignment and coordnated shipping. The work surface and cup drain should be available in black.	
R2 ROOM Physics LAB		
Sl No	Item Description & Specification	Qty
9	Supply and Instalaltion of Wall Bench 1(2485mmW*750mmD*900mmH) joined with wall bench 2(3784mmW*750mmD*900mmH),wall bench 3 (3998mmW*750mmD*900mmH) and wall bench 4(2485mmW*750mmD*900mmH) with corner units and Storage cabinet and Electrical Trunking As per physical dimension of the space	2

10-03-25

	D-FRAME SYSTEM: All D-Frames assemblies should be manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1973 (Indian Standard specification for steel tubes for furniture) and all sheet metal components should be of CRCA confirming to IS Code 513:1994. *The suspended under-bench welded units should be supported on heavy-duty steel frames fully carrying the load of worktops. Its superior strength combined with aesthetically appealing end caps shall give maximum flexibility and modularity while making a layout. D-frame should be constructed from a rectangular pipe with a cross section of 30mm x 30mm and should be a minimum 1.6 mm thick. The D-frame legs should be supplied with adjustable feet (tolerance from -5mm to +20mm) to correct the unevenness of flooring. The tubular enclosed type construction shall discourage dust accumulation and unwanted development of bacteria & fungus.* *Drainage gradient should be well adjusted throughout the length of table and should have horizontal supports for drainage systems... It should be suitable for sitting and standing nominal heights of 750mm & 900mm respectively. The nominal table depths should be 750 mm for wall side. The Corner Units shall fit well with 770mm & 920mm table depths. All frame-work is should be pre-treated with superior pure epoxy powder coated finish. The D-Frames should be for suspended storage cabinets*	
	HORIZONTAL MEMBERS : These should be made from rectangular pipes of 2mm thickness. Cross-sectional dimensions of the pipe should be 30 x 30mm with a minimum of 1.6 mm. They should be made of CRCA MS and coated with pure epoxy powder. These connect two D-Frames together as shown using C-clamps/U-clamps. Together with the D-Frames and Horizontal Members connected together, the skeletal structure of the work-bench is formed on which the worktop can be placed and the hanging-type storage cabinets can be suspended. Horizontal Members determine the width of the lab workbench as they form the member (distance) between two adjacent D-Frames. They should be available in various widths of 450,600, 900, 1050, 1200, 1350, 1500, 1650, and 1800	
	COVER PANELS : All side cover panels and back panels, filler panels should be made from CRCA MS panels of minimum 0.8mm thickness with pure epoxy powder coating	
	ELECTRICAL TRUNKING *Used for housing electrical switches and sockets, data and voice points, its top panel, bottom panel of the trunking should be made from minimum of 0.8mm thick body. It should be available in both, single sided and double sided configurations. It should be made from CRCA MS with pure epoxy powder coating. The front surface that houses the electrical points should have a slope*	

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	WELDED UNDER-BENCH STORAGE CABINETS: Under bench cabinets are Pure epoxy powder coated with thickness of 40-60 microns and are suspended from tubular stucture,with an overlay shutter.The cabinet has a corrosion resistance magnetic strip as shutter catch,shutterand drawer are equipped with 180 degree cam lock.Semi recessed handle and SS-304 five knuckle overlay hinge with 270 degree opening Unit Construction: Welded body with load bearing members such as top,bottom and stiffeners should have a minimum thickness of 0.8mm and drawer separator is 1.2mm thick. Shelf: is made of 0.8mm thickness which is adjustable to 6 steps of 50mm.Shutter is over-closing with 270 degree opening.It has a sandwich construction with profi as a sound dampner. Drawer: Welded filled with profil as sound dampner Single piece construction with an over closing drawer	
	Granite Top:It should be 16mm(+/-2mm) thick Jet Black Granite worktop. The exposed edges of the worktop should be chamfered and smoothened. The bottom of the worktop should be polished and there should be a V-groove throughout the length of the exposed edges to protect the cabinets from coming in contact with the spillages. The overhang on the storage cabinet is 25 mm at the front side and 30 mm at the sides. The backing material used is a neoprene mat of 6mm thickness	
R1- ROOM COMPUTER LAB		
Sl No	Item Description & Specification	Q ty
10	Modular Worstation As per physical dimension of the space (900mm*600mm)	22.00

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	Overall size of each linear workstation should be 900mmW*600mmD As per physical dimension of the space,Worktop height should be 750mm and Partition height 1050mm. Each Worktop shall be made of 25MM thick Pre-Laminated Board conforming to IS: 12823. All the edges of work surface shall be provided with machine pressed 2 mm thick PVC lipping glued with hot melt EVA glue.Legs should be Dfine plus legs,fabricated by Argo Shield welding MS ERW Tube 50 mmx25 mmx1.2mm thk,40 mmx20x1.2 mm thk(as per IS: 7138 ERW) with the base of the MS tube is fitted with a Glide plate 5mm thk HR(as per IS:2062) over which a straight M8 leveler is fitted with bottom translucent cap,which allows for adjustment of the height by 50mm,support brackets 3 mm thk HR(as per IS: 2062)welded on top side of Leg for fixing top. Partition screen is made of block structure (3mm thk MDF board+ batten made of 12mm thk MDF board+3 mm thk MDF board) Honey comb block is used to fill in the void space.Groove of 3 mm is provided on the periphery. This groove is to accommodate the fabric pasted on either side to be tucked in and allow a PVC Flexible T-Mould to give a clean edge. The Fabric screens are upholstered with Hot-melt glue. Soft closing access flap s used upbeat.Standard size for 8+3 module electrical is offered,but can be offered in any Apo sizes. Access flap is made from Aluminum extrusion,PDC parts made from Aluminum Alloy and plastic parts made from Nylon 6 and wire brush with nylon bristles.System should be offered with Metal keyboard tray CPU trolly.	

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