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Tender No. IITT/EU/2023-24/07 **26th June 2023.**

NOTICE INVITING TENDER FOR SUPPLY, INSTALLATION, TESTING, AND COMMISSIONING OF CHEMISTRY LABORATORY FURNITURE

(E-PROCUREMENT MODE ONLY)

Indian Institute of Technology Tirupati (IIT Tirupati) invites online bids (e-tender) in Two bid systems from eligible Class-I & Class-II Local suppliers in line with Government Public Procurement order No.P-45021/2/2017-BE-II dated: 04.06.2020 for the following:

Tender Item No	Description of item	Quantity	Tender Fee (Inclusive of all taxes in Rs.)
1	Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – A: (L 1520 mm ± 20 mm X W 920 mm ± 20 mm X H 900 mm ± 20 mm)	59	Rs. 2500/-
2	Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – B: (L 1520 mm ± 20 mm X W 760 mm ± 20 mm X H 900 mm ± 20 mm)	27	
3	Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – C: (L 1200 mm ± 20 mm X W 920 mm ± 20 mm X H 900 mm ± 20 mm)	14	
4	Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – D: (L 1500 mm ± 20 mm X W 1050 mm ± 20 mm X H 900 mm ± 20 mm)	03	
5	Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – E: (L 1100 mm ± 20 mm X W 1050 mm ± 20 mm X H 900 mm ± 20 mm)	02	
6	Granite top work bench with power sockets, Under storage cabinets and Leg space TYPE A : (L 1800 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm)	87	
7	Granite top work bench with power sockets, Under storage cabinets and Leg space TYPE – B: (L 1500 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm)	33	
8	Granite top work bench without storage cabinet TYPE – A: (L 1500 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm)	04	
9	Granite top work bench without storage cabinet TYPE – B: (L 1500 mm ± 20 mm X W 1220 mm ± 20 mm X H 650 mm ± 20 mm)	02	

10	Granite top work bench without storage cabinet TYPE – C: (L 1500 mm ± 20 mm X W 750 mm ± 20 mm X H 750 mm ± 20 mm)	25	
11	Movable under bench cabinet (L 600 mm ± 20 mm X W 530 mm ± 20 mm X H 650 mm ± 20 mm)	05	
12	Reagent shelves on the work bench TYPE – A : (L 1200 mm ± 20 mm X W 250 mm ± 20 mm X H 600 mm ± 20 mm)	08	
13	Reagent shelves on the work bench TYPE – B : (L 1500 mm ± 20 mm X W 250 mm ± 20 mm X H 600 mm ± 20 mm)	18	
14	Reagent shelves on the work bench TYPE – C: (L 900 mm ± 20 mm X W 250 mm ± 20 mm X H 600 mm ± 20 mm)	50	
15	Acid/Alkali storage cabinet (L 900 mm ± 20 mm X W 600 mm ± 20 mm X H 1970 mm ± 20 mm)	2	
16	Solvent Storage Cabinet - Flammable storage cabinet (L 900 mm ± 20 mm X W 600 mm ± 20 mm X H 1970 mm ± 20 mm)	8	
17	Full Height Storage Cabinet (L 600 mm ± 20 mm X W 900 mm ± 20 mm X H 2000 mm ± 20 mm)	77	
18	Double Door Wall Mounted Storage Cabinets (L 750 mm ± 10 mm X W 400 mm ± 10 mm X H 750 mm ± 10 mm)	278	
19	Gas Cylinder Cabinet (L 1200-1400 mm ± 10 mm X W 500 mm ± 10 mm X H 2000 mm ± 10 mm)	31	
20	Granite Top workbench with sink and peg board TYPE – A: (Table Dimension: L 1500 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 10 mm & Sink Dimension: L 560 mm ± 20 mm X W 360 mm ± 20 mm X H 300 mm ± 10 mm)	08	
21	Granite Top workbench with sink and peg board TYPE – B: (Table Dimension: L 1500 mm ± 20 mm X W 760 mm ± 20 mm X H 900 mm ± 10 mm & Sink Dimension: L 600 mm ± 20 mm X W 360 mm ± 20 mm X H 300 mm ± 10 mm)	12	
22	Granite Top workbench with sink and peg board TYPE – C: (Table Dimension: L 1200 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 10 mm & Sink Dimension: L 560 mm ± 20 mm X W 360 mm ± 20 mm X H 300 mm ± 10 mm)	02	
23	Granite Top workbench with sink and peg board TYPE – D: (Table Dimension: L 750 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 10 mm & Sink Dimension: L 560 mm ± 20 mm X W 360 mm ± 20 mm X H 300 mm ± 10 mm)	01	

24	Double Sink with granite top and peg board (L 1500 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm)	01	
25	Single Sink with peg board (L 900 mm ± 20 mm X W 760 mm ± 20 mm X H 900 mm ± 20 mm & Sink Dimension: 560 mm X 355 mm X 245 mm)	41	
26	Laboratory stools	182	
27	Anti-Vibration Tables Type – A (L 1200 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm)	18	
28	Anti-Vibration Tables Type – B (L 1500 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm)	04	
29	Trolly for Gas cylinders(50L) – One Cylinder Trolly Type – A	06	
30	Trolly for Gas cylinders (50L) - Two Cylinder Trolly Type – B	02	
31	Safety shower with Eye wash	15	
32	Shoe Rack (L 1200 mm ± 20 mm X W 450 mm ± 20 mm X H 900 mm ± 20 mm)	16	
33	Student storage cabinet	14	

"Splitting of items is not allowed. Bidders should quote for all the items"

Note: * The bidder must quote for all the items otherwise the bid will be summarily rejected. The tender is not to be awarded in piecemeal and item-wise to the firm. The Evaluation will be based on the total value.**

The Tender Document can be downloaded from Central Public Procurement (CPP) Portal http://eprocure.gov.in/eprocure/app and www. iittp.ac.in/tenders/ bid is to be submitted online only through the same portal up to the last date and time of submission of tender.

Critical Dates of Tender:

1	Date and time of Online Publication/Download of Tenders	26.06.2023	18.00 hrs
2	Clarifications start date	27.06.2023	10.00 hrs
3	Clarifications end date	03.07.2023	15.00 hrs
4	Uploading of corrigendum after the receipt of clarifications (If any)	04.07.2023	15.00 hrs
5	Bid submission start date & time	26.06.2023	11.00 hrs
6	Bid submission close date & time	17.07.2023	15.00 hrs
7	Closing date & time for submission of EMD/Tender fee	17.07.2023	15.00 hrs
8	Opening of Technical bids	18.07.2023	15.00 hrs

All Technical and Specification-related queries may be forwarded to Email ID: eutenders@iittp.ac.in before the clarifications end date as per the format provided in the Annexure-X.

1. About IIT TIRUPATI:

Indian Institute of Technology Tirupati (IIT Tirupati) is an Autonomous Institute under the Ministry of Education, Govt. of India.

2. Technical Specifications: Schedule of requirement

NOTE: All the tables should be assembled as per the site requirements during installation.

1. Granite top wall/side table with under bench fixed storage cabinets and power sockets: TYPE – A (59 nos)

Dimensions:
Length: **1520 mm ± 20 mm**
Width: **920 mm ± 20 mm**
Height: **900 mm ± 20 mm**

- SEFA 8M Compliant Plinth/ Floor Mounted Cabinets Flush face construction. Fully welded with doors and drawers in the same plane as the cabinet face frame without overlap with 1.2 mm thick cold rolled close annealed (CRCA) steel sheets in the main frame and 1.2 mm in other secondary members complying with the relevant IS/BS/ASTM codes and standards as per drawing no.
- The cabinets shall be designed and built to withstand a uniformly distributed load of 900kg/m^3 of cabinet top area including working surface without distortion or interference with door and drawers' operation. Cabinet corners where levelling boils intersect horizontal gussets shall support 225 kg per corner at 1 ½ inch (38mm) projection of the levelling below the gusset.
- Drawer assembles shall automatically maintain alignment in cabinet opening and shall not bend during opening or closing of the drawer.
- The drawers' assemblies shall withstand the drawer cycle test 45Kgs weight loaded in drawer for 50,000 cycles.
- Swinging doors/ Shutters assembly shall be twist resistant and rigid and shall close in a flat plane against the cabinet to permit the door catch at top of the door to function properly.
- The door or shutters assembly shall withstand the Door Cycle test 90kg hanging on shutter for 1,00,000 cycles.
- Cycle test shall allow nominal temporary deflection, but no permanent distortion.
- The cabinets will be pre-treated with an environmentally friendly, electro-statically applied pure epoxy powder-coated finish with thickness of 60-80 microns.
- All frame-work, cover panels, back panels, and other components in the workbench should be pre-treated with superior pure 60-80-micron epoxy powder coated finish.
- The metal panels should be 1.2 mm or thicker.
- The worktop should be 18/19 mm thick jet black granite and the front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 work bench should be provided with electrical switches and sockets (4 nos of 6/16A sockets on each table.
- The structure should have the removable back panel to provide access for maintenance throughout the length of the table.
- Stainless steel finish handles shall be of recess – type.
- The units have a locking facility with 90/180 degree, lock mechanism (expect for sink).
- Hinges shall be made from grade 304 stainless steel. Hinges shall be attached to both the door and case with three screws through each leaf (Welding of hinges to door or case shall not be permitted)

Doors less than 36" in height shall be hung on one pair of hinges and doors over 36" height shall be hung on 3 hinges.

- The hinges shall conform to Hinge Test 90kg weight hanging on shutter for 50,000 cycles.
- Cabinet combination of 1 drawer and 1 or 2 shutter shall be as per configuration drawing enclosed.
- Fixed storage cabinet: All the cabinets are rigidly fixed to the working bench as per drawing at specified location. The material should be of galvanized iron sheet with powder coating pure epoxy thickness of 60-80 microns in a weld less construction. The cabinet should be excellent corrosion resistant and spillage proof against acid and alkali solutions. The cabinet should be of square, non-sharp edge construction. Module sheet thickness should be 1.2 mm or more. Drawer tray should be of single piece construction. The drawer trays should be mounted on the telescopic slides, capable of bearing a load of 45 kg. provide auto closing type hinges in SS construction (hidden type) with 180 degree opening. Should facilitate an adjustable shelve system. Aluminium flush handles are to be provided. Provide lock with two keys for drawer and shutter.

2. Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – B (27 nos):

Dimensions:

Length: **1520 mm ± 20 mm**

Width: **760 mm ± 20 mm**

Height: **900 mm ± 20 mm**

- SEFA 8M Compliant Plinth/ Floor Mounted Cabinets Flush face construction. Fully welded with doors and drawers in the same plane as the cabinet face frame without overlap with 1.2 mm thick cold rolled close annealed (CRCA) steel sheets in the main frame and 1.2 mm in other secondary members complying with the relevant IS/BS/ASTM codes and standards as per drawing no.
- The cabinets shall be designed and built to withstand a uniformly distributed load of 900kg/m^3 of cabinet top area including working surface without distortion or interference with door and drawers' operation. Cabinet corners where levelling boils intersect horizontal gussets shall support 225 kg per corner at 1 ½ inch (38mm) projection of the levelling below the gusset.
- Drawer assembles shall automatically maintain alignment in cabinet opening and shall not bend during opening or closing of the drawer.
- The drawers' assemblies shall withstand the drawer cycle test 45Kgs weight loaded in drawer for 50,000 cycles.
- Swinging doors/ Shutters assembly shall be twist resistant and rigid and shall close in a flat plane against the cabinet to permit the door catch at top of the door to function properly.
- The door or shutters assembly shall withstand the Door Cycle test 90kg hanging on shutter for 1,00,000 cycles.
- Cycle test shall allow nominal temporary deflection, but no permanent distortion.
- The cabinets will be pre-treated with an environmentally friendly, electro-statically applied pure epoxy powder-coated finish with thickness of 60-80 microns.
- All frame-work, cover panels, back panels, and other components in the workbench should be pre-treated with superior pure 60-80-micron epoxy powder coated finish.
- The metal panels should be 1.2 mm or thicker.
- The worktop should be 18/19 mm thick jet black granite and the front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 work bench should be provided with electrical switches and sockets (4 nos of 6/16A sockets on

each table.

- The structure should have the removable back panel to provide access for maintenance throughout the length of the table.
- Stainless steel finish handles shall be of recess – type.
- The units have a locking facility with 90/180 degree, lock mechanism (expect for sink).
- Hinges shall be made from grade 304 stainless steel. Hinges shall be attached to both the door and case with three screws through each leaf (Welding of hinges to door or case shall not be permitted) Doors less than 36" in height shall be hung on one pair of hinges and doors over 36" height shall be hung on 3 hinges.
- The hinges shall conform to Hinge Test 90kg weight hanging on shutter for 50,000 cycles.
- Cabinet combination of 1 drawer and 1 or 2 shutter shall be as per configuration drawing enclosed.
- Fixed storage cabinet: All the cabinets are rigidly fixed to the working bench as per drawing at specified location. The material should be of galvanized iron sheet with powder coating pure epoxy thickness of 60-80 microns in a weld less construction. The cabinet should be excellent corrosion resistant and spillage proof against acid and alkali solutions. The cabinet should be of square, non-sharp edge construction. Module sheet thickness should be 1.2 mm or more. Drawer tray should be of single piece construction. The drawer trays should be mounted on the telescopic slides, capable of bearing a load of 45 kg. provide auto closing type hinges in SS construction (hidden type) with 180 degree opening. Should facilitate an adjustable shelve system. Aluminium flush handles are to be provided. Provide lock with two keys for drawer and shutter.

3. Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – C (14 nos):

Dimensions:

Length: **1200 mm ± 20 mm**

Width: **920 mm ± 20 mm**

Height: **900 mm ± 20 mm**

- SEFA 8M Compliant Plinth/ Floor Mounted Cabinets Flush face construction. Fully welded with doors and drawers in the same plane as the cabinet face frame without overlap with 1.2 mm thick cold rolled close annealed (CRCA) steel sheets in the main frame and 1.2 mm in other secondary members complying with the relevant IS/BS/ASTM codes and standards as per drawing no.
- The cabinets shall be designed and built to withstand a uniformly distributed load of 900kg/m^3 of cabinet top area including working surface without distortion or interference with door and drawers' operation. Cabinet corners where levelling boils intersect horizontal gussets shall support 225 kg per corner at 1 ½ inch (38mm) projection of the levelling below the gusset.
- Drawer assembles shall automatically maintain alignment in cabinet opening and shall not bend during opening or closing of the drawer.
- The drawers' assemblies shall withstand the drawer cycle test 45Kgs weight loaded in drawer for 50,000 cycles.
- Swinging doors/ Shutters assembly shall be twist resistant and rigid and shall close in a flat plane against the cabinet to permit the door catch at top of the door to function properly.
- The door or shutters assembly shall withstand the Door Cycle test 90kg hanging on shutter for 1,00,000 cycles.
- Cycle test shall allow nominal temporary deflection, but no permanent distortion.

- The cabinets will be pre-treated with an environmentally friendly, electro-statically applied pure epoxy powder-coated finish with thickness of 60-80 microns.
- All frame-work, cover panels, back panels, and other components in the workbench should be pre-treated with superior pure 60-80-micron epoxy powder coated finish.
- The metal panels should be 1.2 mm or thicker.
- The worktop should be 18/19 mm thick jet black granite and the front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 work bench should be provided with electrical switches and sockets (4 nos of 6/16A sockets on each table.
- The structure should have the removable back panel to provide access for maintenance throughout the length of the table.
- Stainless steel finish handles shall be of recess – type.
- The units have a locking facility with 90/180 degree, lock mechanism (expect for sink).
- Hinges shall be made from grade 304 stainless steel. Hinges shall be attached to both the door and case with three screws through each leaf (Welding of hinges to door or case shall not be permitted) Doors less than 36" in height shall be hung on one pair of hinges and doors over 36" height shall be hung on 3 hinges.
- The hinges shall conform to Hinge Test 90kg weight hanging on shutter for 50,000 cycles.
- Cabinet combination of 1 drawer and 1 or 2 shutter shall be as per configuration drawing enclosed.
- Fixed storage cabinet: All the cabinets are rigidly fixed to the working bench as per drawing at specified location. The material should be of galvanized iron sheet with powder coating pure epoxy thickness of 60-80 microns in a weld less construction. The cabinet should be excellent corrosion resistant and spillage proof against acid and alkali solutions. The cabinet should be of square, non-sharp edge construction. Module sheet thickness should be 1.2 mm or more. Drawer tray should be of single piece construction. The drawer trays should be mounted on the telescopic slides, capable of bearing a load of 45 kg. provide auto closing type hinges in SS construction (hidden type) with 180 degree opening. Should facilitate an adjustable shelve system. Aluminium flush handles are to be provided. Provide lock with two keys for drawer and shutter.

4. Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – D (03 nos):

Dimensions:

Length: **1500 mm ± 20 mm**

Width: **1050 mm ± 20 mm**

Height: **900 mm ± 20 mm**

- SEFA 8M Compliant Plinth/ Floor Mounted Cabinets Flush face construction. Fully welded with doors and drawers in the same plane as the cabinet face frame without overlap with 1.2 mm thick cold rolled close annealed (CRCA) steel sheets in the main frame and 1.2 mm in other secondary members complying with the relevant IS/BS/ASTM codes and standards as per drawing no.
- The cabinets shall be designed and built to withstand a uniformly distributed load of 900kg/m^3 of cabinet top area including working surface without distortion or interference with door and drawers' operation. Cabinet corners where levelling boils intersect horizontal gussets shall

support 225 kg per corner at 1 ½ inch (38mm) projection of the levelling below the gusset.

- Drawer assembles shall automatically maintain alignment in cabinet opening and shall not bend during opening or closing of the drawer.
- The drawers' assemblies shall withstand the drawer cycle test 45Kgs weight loaded in drawer for 50,000 cycles.
- Swinging doors/ Shutters assembly shall be twist resistant and rigid and shall close in a flat plane against the cabinet to permit the door catch at top of the door to function properly.
- The door or shutters assembly shall withstand the Door Cycle test 90kg hanging on shutter for 1,00,000 cycles.
- Cycle test shall allow nominal temporary deflection, but no permanent distortion.
- The cabinets will be pre-treated with an environmentally friendly, electro-statically applied pure epoxy powder-coated finish with thickness of 60-80 microns.
- All frame-work, cover panels, back panels, and other components in the workbench should be pre-treated with superior pure 60-80-micron epoxy powder coated finish.
- The metal panels should be 1.2 mm or thicker.
- The worktop should be 18/19 mm thick jet black granite and the front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 work bench should be provided with electrical switches and sockets (4 nos of 6/16A sockets on each table.
- The structure should have the removable back panel to provide access for maintenance throughout the length of the table.
- Stainless steel finish handles shall be of recess – type.
- The units have a locking facility with 90/180 degree, lock mechanism (expect for sink).
- Hinges shall be made from grade 304 stainless steel. Hinges shall be attached to both the door and case with three screws through each leaf (Welding of hinges to door or case shall not be permitted) Doors less than 36" in height shall be hung on one pair of hinges and doors over 36" height shall be hung on 3 hinges.
- The hinges shall conform to Hinge Test 90kg weight hanging on shutter for 50,000 cycles.
- Cabinet combination of 1 drawer and 1 or 2 shutter shall be as per configuration drawing enclosed.
- Fixed storage cabinet: All the cabinets are rigidly fixed to the working bench as per drawing at specified location. The material should be of galvanized iron sheet with powder coating pure epoxy thickness of 60-80 microns in a weld less construction. The cabinet should be excellent corrosion resistant and spillage proof against acid and alkali solutions. The cabinet should be of square, non-sharp edge construction. Module sheet thickness should be 1.2 mm or more. Drawer tray should be of single piece construction. The drawer trays should be mounted on the telescopic slides, capable of bearing a load of 45 kg. provide auto closing type hinges in SS construction (hidden type) with 180 degree opening. Should facilitate an adjustable shelve system. Aluminium flush handles are to be provided. Provide lock with two keys for drawer and shutter.

5. Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – E (02 nos):

Dimensions:

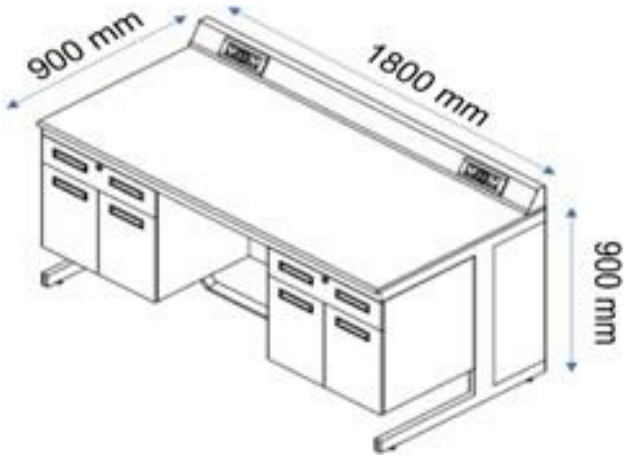
Length: **1100 mm ± 20 mm**

Width: **1050 mm ± 20 mm**

Height: **900 mm ± 20 mm**

- SEFA 8M Compliant Plinth/ Floor Mounted Cabinets Flush face construction. Fully welded with doors and drawers in the same plane as the cabinet face frame without overlap with 1.2 mm thick cold rolled close annealed (CRCA) steel sheets in the main frame and 1.2 mm in other secondary members complying with the relevant IS/BS/ASTM codes and standards as per drawing no.
- The cabinets shall be designed and built to withstand a uniformly distributed load of 900kg/m^3 of cabinet top area including working surface without distortion or interference with door and drawers' operation. Cabinet corners where levelling boils intersect horizontal gussets shall support 225 kg per corner at 1 ½ inch (38mm) projection of the levelling below the gusset.
- Drawer assembles shall automatically maintain alignment in cabinet opening and shall not bend during opening or closing of the drawer.
- The drawers' assemblies shall withstand the drawer cycle test 45Kgs weight loaded in drawer for 50,000 cycles.
- Swinging doors/ Shutters assembly shall be twist resistant and rigid and shall close in a flat plane against the cabinet to permit the door catch at top of the door to function properly.
- The door or shutters assembly shall withstand the Door Cycle test 90kg hanging on shutter for 1,00,000 cycles.
- Cycle test shall allow nominal temporary deflection, but no permanent distortion.
- The cabinets will be pre-treated with an environmentally friendly, electro-statically applied pure epoxy powder-coated finish with thickness of 60-80 microns.
- All frame-work, cover panels, back panels, and other components in the workbench should be pre-treated with superior pure 60-80-micron epoxy powder coated finish.
- The metal panels should be 1.2 mm or thicker.
- The worktop should be 18/19 mm thick jet black granite and the front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 work bench should be provided with electrical switches and sockets (4 nos of 6/16A sockets on each table.
- The structure should have the removable back panel to provide access for maintenance throughout the length of the table.
- Stainless steel finish handles shall be of recess – type.
- The units have a locking facility with 90/180 degree, lock mechanism (expect for sink).
- Hinges shall be made from grade 304 stainless steel. Hinges shall be attached to both the door and case with three screws through each leaf (Welding of hinges to door or case shall not be permitted) Doors less than 36" in height shall be hung on one pair of hinges and doors over 36" height shall be hung on 3 hinges.
- The hinges shall conform to Hinge Test 90kg weight hanging on shutter for 50,000 cycles.
- Cabinet combination of 1 drawer and 1 or 2 shutter shall be as per configuration drawing enclosed.
- Fixed storage cabinet: All the cabinets are rigidly fixed to the working bench as per drawing at specified location. The material should be of galvanized iron sheet with powder coating pure epoxy thickness of 60-80 microns in a weld less construction. The cabinet should be excellent corrosion resistant and spillage proof against acid and alkali solutions. The cabinet should be of square, non-sharp edge construction. Module sheet thickness should be 1.2 mm or more. Drawer tray should be of single piece construction. The drawer trays should be mounted on the telescopic slides, capable of bearing a load of 45 kg. provide auto closing type hinges in SS construction (hidden type) with 180 degree opening. Should facilitate an adjustable shelve system. Aluminium flush handles are to be provided. Provide lock with two keys for drawer and shutter.

6. Granite top work bench with power sockets, Under storage cabinets and Leg space TYPE – A (87 nos):



Dimensions:

Length: **1800 mm ± 20 mm**

Width: **900 mm ± 20 mm**

Height: **900 mm ± 20 mm**

- SEFA 8M Fully welded with doors and drawers in the same plane as the cabinet face frame without overlap with 1.2mm thick cold rolled close annealed (CRCA) steel sheets in the main frame and 1.2 mm in other secondary members complying with the relevant IS/BS/ASTM codes and standards as per drawing no.
- The cabinets shall be designed and built to withstand a uniformly distributed load of 900kg/m^2 of cabinet top area including working surface without distortion or interference with door and drawers' operation. Cabinet corners where levelling boils intersect horizontal gussets shall support 225 kg per corner at 1 ½ inch (38mm) projection of the levelling below the gusset.
- Drawer assembles shall automatically maintain alignment in cabinet opening and shall not bend during opening or closing of the drawer.
- The drawers' assemblies shall withstand the drawer cycle test 45Kgs weight loaded in drawer.
- Swinging doors/ Shutters assembly shall be twist resistant and rigid and shall close in a flat plane against the cabinet to permit the door catch at top of the door to function properly.
- The door or shutters assembly shall withstand the Door Cycle test 90kg hanging on shutter.
- Cycle test shall allow nominal temporary deflection, but no permanent distortion.
- The cabinets will be pre-treated with environmentally friendly, electro statically applied pure epoxy powder coated finish with thickness of 60 - 80 microns on every side of the table (all the panels in the table).
- Stainless steel finish handles shall be of recess – type.
- Four numbers of 6/16 A power sockets should be provided for each table with MCB. (2 plug pins in a single socket).
- The units have a locking facility with 90/180 degree, lock mechanism (expect for sink).
- Hinges shall be made from grade 304 stainless steel. Hinges shall be attached to both the door and case with three screws through each leaf (Welding of hinges to door or case shall not be

permitted) Doors less than 36” in height shall be hung on one pair of hinges and doors over 36” height shall be hung on 3 hinges.

- The hinges shall conform to Hinge Test 90kg weight hanging on shutter.

Cabinet combination of 1 drawer and 1 or 2 shutter shall be as per configuration drawing enclosed.
Colour of coating choice to be provided (atleast 3 colours).

- Fixed storage cabinet: All the cabinets are rigidly fixed to the working bench as per drawing at specified location. The material should be of galvanized iron sheet with powder coating pure epoxy thickness of 60-80 microns in a weld less construction. The cabinet should be excellent corrosion resistant and spillage proof against acid and alkali solutions. The cabinet should be of square, non-sharp edge construction. Module sheet thickness should be 1.2 mm or more. Drawer tray should be of single piece construction. The drawer trays should be mounted on the telescopic slides, capable of bearing a load of 45 kg. provide auto closing type hinges in SS construction (hidden type) with 180 degree opening. Should facilitate an adjustable shelve system. Aluminium flush handles are to be provided. Provide lock with two keys for drawer and shutter.

C-Frame System

- All C-Frames assemblies should be manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1993 (Indian Standard specification for steel tubes for furniture).
- All sheet metal components should be of CRCA confirming to IS Code 513:2016.
- C-frame should be constructed from a rectangular pipe with a cross section of 60 mm x 30 mm and should be 2 mm thick and should be without a vertical front leg to give a clean look.
- This shall provide more knee space or leg space and would facilitate uninterrupted lateral movement of the under-bench units within the bench run.
- The C-frame legs should be supplied with adjustable PVC nylon bush with high impact and vibration resistance (tolerance from -5 mm to +20 mm) to correct the unevenness of flooring.
- The structure should have a removable back panel to provide access for maintenance throughout the length of the table. The C-frame shall also have skirting at back bottom side.
- All framework should be pre-treated with superior pure epoxy powder coated finish.
- All steel components need to be pre-treated with an acid wash, anticorrosive treatment prior to powder coating.
- The entire framework should be done with pure 60-80 microns epoxy powder coating.
- Scratch-resistant Powder Coat of required colour for all metal approved by IIT Tirupati shall be provided.
- All the welding should be done using the electro-welding process only.

Horizontal Members

- CRCA Rectangular pipe of cross-section of 60 x 30 mm and 2 mm thickness shall be used with 60-80 microns pure epoxy powder coating.
- Horizontal members shall be connected using C-clamps/U-clamps with two adjacent C-Frames at a distance of 1800 mm together and that shall form the skeletal structure of the work bench on which the worktop can be placed.

Removable Back Panels

- Removable back panels cover the service lines that run behind them.

- These should be easily removable (unclipped) and the service line be accessed for maintenance. This allows the equipment on the workbench to remain undisturbed.
- They should be made of CRCA sheet 1.2 mm of thickness and provided with 60-80 microns pure epoxy powder coating.

Side Cover and Filler Panels

- All side cover and filler panels should be made from CRCA sheet of 1.2 mm thickness with 60 – 80 microns pure epoxy powder coating.

Electrical Trunking

- The trunking for housing electrical switches and sockets along with 2 LAN Ports shall be made from 1.2 mm thick CRCA sheet with 60 – 80 microns pure epoxy powder coating.
- It should be available as single sided configurations (as per schedule of requirement) along with screwed caps.
- The front surface that houses the electrical points should have a slope.

Worktop

- Jet Black Granite worktop should be of 18 ± 2 mm thick.
- The front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 for the worktop 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.
- All front corners shall be smoothly curved; and sharp corners should be avoided.
- Tabletop and other components should have a colour approved by IIT Tirupati.

7. Granite top work bench with power sockets, Under storage cabinets and Leg space TYPE – B (33 nos):

Dimensions:

Length: **1500 mm ± 20 mm**

Width: **900 mm ± 20 mm**

Height: **900 mm ± 20 mm**

- SEFA 8M Fully welded with doors and drawers in the same plane as the cabinet face frame without overlap with 1.2 mm thick cold rolled close annealed (CRCA) steel sheets in the main frame and 1.2 mm in other secondary members complying with the relevant IS/BS/ASTM codes and standards as per drawing no.
- The cabinets shall be designed and built to withstand a uniformly distributed load of 900kg/m^2 of cabinet top area including working surface without distortion or interference with door and drawers' operation. Cabinet corners where levelling boils intersect horizontal gussets shall support 225 kg per corner at 1 ½ inch (38mm) projection of the levelling below the gusset.
- Drawer assembles shall automatically maintain alignment in cabinet opening and shall not bend during opening or closing of the drawer.

- The drawers' assemblies shall withstand the drawer cycle test 45Kgs weight loaded in drawer.
- Swinging doors/ Shutters assembly shall be twist resistant and rigid and shall close in a flat plane against the cabinet to permit the door catch at top of the door to function properly.
- The door or shutters assembly shall withstand the Door Cycle test 90kg hanging on shutter.
- Cycle test shall allow nominal temporary deflection, but no permanent distortion.
- The cabinets will be pre-treated with environmentally friendly, electro statically applied pure epoxy powder coated finish with thickness of 60 - 80 microns on every side of the table (all the panels in the table).
- Stainless steel finish handles shall be of recess – type.
- Four numbers of 6/16 A power sockets should be provided for each table with MCB. (2 plug pins in a single socket).
- The units have a locking facility with 90/180 degree, lock mechanism (expect for sink).
- Hinges shall be made from grade 304 stainless steel. Hinges shall be attached to both the door and case with three screws through each leaf (Welding of hinges to door or case shall not be permitted) Doors less than 36" in height shall be hung on one pair of hinges and doors over 36" height shall be hung on 3 hinges.
- The hinges shall conform to Hinge Test 90kg weight hanging on shutter.

Cabinet combination of 1 drawer and 1 or 2 shutter shall be as per configuration drawing enclosed.
Colour of coating choice to be provided (atleast 3 colours).

- Fixed storage cabinet: All the cabinets are rigidly fixed to the working bench as per drawing at specified location. The material should be of galvanized iron sheet with powder coating pure epoxy thickness of 60-80 microns in a weld less construction. The cabinet should be excellent corrosion resistant and spillage proof against acid and alkali solutions. The cabinet should be of square, non-sharp edge construction. Module sheet thickness should be 1.2 mm or more. Drawer tray should be of single piece construction. The drawer trays should be mounted on the telescopic slides, capable of bearing a load of 45 kg. provide auto closing type hinges in SS construction (hidden type) with 180 degree opening. Should facilitate an adjustable shelve system. Aluminium flush handles are to be provided. Provide lock with two keys for drawer and shutter.

C-Frame System

- All C-Frames assemblies should be manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1993 (Indian Standard specification for steel tubes for furniture).
- All sheet metal components should be of CRCA confirming to IS Code 513:2016.
- C-frame should be constructed from a rectangular pipe with a cross section of 60 mm x 30 mm and should be 2 mm thick and should be without a vertical front leg to give a clean look.
- This shall provide more knee space or leg space and would facilitate uninterrupted lateral movement of the under-bench units within the bench run.
- The C-frame legs should be supplied with adjustable PVC nylon bush with high impact and vibration resistance (tolerance from -5 mm to +20 mm) to correct the unevenness of flooring.
- The structure should have a removable back panel to provide access for maintenance throughout the length of the table. The C-frame shall also have skirting at back bottom side.
- All framework should be pre-treated with superior pure epoxy powder coated finish.

- All steel components need to be pre-treated with an acid wash, anticorrosive treatment prior to powder coating.
- The entire framework should be done with pure 60-80 microns epoxy powder coating.
- Scratch-resistant Powder Coat of required colour for all metal approved by IIT Tirupati shall be provided.
- All the welding should be done using the electro-welding process only.

Horizontal Members

- CRCA Rectangular pipe of cross-section of 60 x 30 mm and 2 mm thickness shall be used with 60-80 microns pure epoxy powder coating.
- Horizontal members shall be connected using C-clamps/U-clamps with two adjacent C-Frames at a distance of 1500 mm together and that shall form the skeletal structure of the work bench on which the worktop can be placed.

Removable Back Panels

- Removable back panels cover the service lines that run behind them.
- These should be easily removable (unclipped) and the service line be accessed for maintenance. This allows the equipment on the workbench to remain undisturbed.
- They should be made of CRCA sheet 1.2 mm of thickness and provided with 60-80 microns pure epoxy powder coating.

Side Cover and Filler Panels

- All side cover and filler panels should be made from CRCA sheet of 1.2 mm thickness with 60 – 80 microns pure epoxy powder coating.

Electrical Trunking

- The trunking for housing electrical switches and sockets along with 2 LAN Ports shall be made from 1.2 mm thick CRCA sheet with 60 – 80 microns pure epoxy powder coating.
- It should be available as single sided configurations (as per schedule of requirement) along with screwed caps.
- The front surface that houses the electrical points should have a slope.

Worktop

- Jet Black Granite worktop should be of 18 ± 2 mm thick.
- The front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 for the worktop 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.
- All front corners shall be smoothly curved; and sharp corners should be avoided.
- Tabletop and other components should have a colour approved by IIT Tirupati.

8. Granite top work bench without storage cabinet: TYPE – A (04 nos)

Dimensions:

Length: **1500 mm ± 20 mm**
Width: **900 mm ± 20 mm**
Height: **900 mm ± 20 mm**

- Four numbers of 6/16 A power sockets should be provided for each table with MCB. (2 plug pins in a single socket).

Colour of coating choice to be provided (atleast 3 colours).

C-Frame System

- All C-Frames assemblies should be manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1993 (Indian Standard specification for steel tubes for furniture).
- All sheet metal components should be of CRCA confirming to IS Code 513:2016.
- C-frame should be constructed from a rectangular pipe with a cross section of 60 mm x 30 mm and should be 2 mm thick and should be without a vertical front leg to give a clean look.
- This shall provide more knee space or leg space and would facilitate uninterrupted lateral movement of the under-bench units within the bench run.
- The C-frame legs should be supplied with adjustable PVC nylon bush with high impact and vibration resistance (tolerance from -5 mm to +20 mm) to correct the unevenness of flooring.
- The structure should have a removable back panel to provide access for maintenance throughout the length of the table. The C-frame shall also have skirting at back bottom side.
- All framework should be pre-treated with superior pure epoxy powder coated finish.
- All steel components need to be pre-treated with an acid wash, anticorrosive treatment prior to powder coating.
- The entire framework should be done with pure 60-80 microns epoxy powder coating.
- Scratch-resistant Powder Coat of required colour for all metal approved by IIT Tirupati shall be provided.
- All the welding should be done using the electro-welding process only.

Horizontal Members

- CRCA Rectangular pipe of cross-section of 60 x 30 mm and 2 mm thickness shall be used with 60-80 microns pure epoxy powder coating.
- Horizontal members shall be connected using C-clamps/U-clamps with two adjacent C-Frames at a distance of 1520 mm together and that shall form the skeletal structure of the work bench on which the worktop can be placed.

Removable Back Panels

- Removable back panels cover the service lines that run behind them.
- These should be easily removable (unclipped) and the service line be accessed for maintenance. This allows the equipment on the workbench to remain undisturbed.
- They should be made of CRCA sheet 1.2 mm of thickness and provided with 60-80 microns pure epoxy powder coating.

Side Cover and Filler Panels

- All side cover and filler panels should be made from CRCA sheet of 1.2 mm thickness with 60 – 80 microns pure epoxy powder coating.

Electrical Trunking

- The trunking for housing electrical switches and sockets along with 2 LAN Ports shall be made from 1.2 mm thick CRCA sheet with 60 – 80 microns pure epoxy powder coating.
- It should be available as single sided configurations (as per schedule of requirement) along with screwed caps.
- The front surface that houses the electrical points should have a slope.

Worktop

- Jet Black Granite worktop should be of 18 ± 2 mm thick.
- The front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 for the worktop 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.
- All front corners shall be smoothly curved; and sharp corners should be avoided.
- Tabletop and other components should have a colour approved by IIT Tirupati.

9. Granite top work bench without storage cabinet: TYPE – B (02 nos)

Dimensions:
Length: **1500 mm ± 20 mm**
Width: **1220 mm ± 20 mm**
Height: **650 mm ± 20 mm**

- Four numbers of 6/16 A power sockets should be provided for each table with MCB. (2 plug pins in a single socket).

Colour of coating choice to be provided (atleast 3 colours).

C-Frame System

- All C-Frames assemblies should be manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1993 (Indian Standard specification for steel tubes for furniture).
- All sheet metal components should be of CRCA confirming to IS Code 513:2016.
- C-frame should be constructed from a rectangular pipe with a cross section of 60 mm x 30 mm and should be 2 mm thick and should be without a vertical front leg to give a clean look.
- This shall provide more knee space or leg space and would facilitate uninterrupted lateral movement of the under-bench units within the bench run.
- The C-frame legs should be supplied with adjustable PVC nylon bush with high impact and vibration resistance (tolerance from -5 mm to +20 mm) to correct the unevenness of flooring.
- The structure should have a removable back panel to provide access for maintenance throughout the length of the table. The C-frame shall also have skirting at back bottom side.
- All framework should be pre-treated with superior pure epoxy powder coated finish.

- All steel components need to be pre-treated with an acid wash, anticorrosive treatment prior to powder coating.
- The entire framework should be done with pure 60-80 microns epoxy powder coating.
- Scratch-resistant Powder Coat of required colour for all metal approved by IIT Tirupati shall be provided.
- All the welding should be done using the electro-welding process only.

Horizontal Members

- CRCA Rectangular pipe of cross-section of 60 x 30 mm and 2 mm thickness shall be used with 60-80 microns pure epoxy powder coating.
- Horizontal members shall be connected using C-clamps/U-clamps with two adjacent C-Frames at a distance of 1520 mm together and that shall form the skeletal structure of the work bench on which the worktop can be placed.

Removable Back Panels

- Removable back panels cover the service lines that run behind them.
- These should be easily removable (unclipped) and the service line be accessed for maintenance. This allows the equipment on the workbench to remain undisturbed.
- They should be made of CRCA sheet 1.2 mm of thickness and provided with 60-80 microns pure epoxy powder coating.

Side Cover and Filler Panels

- All side cover and filler panels should be made from CRCA sheet of 1.2 mm thickness with 60 – 80 microns pure epoxy powder coating.

Electrical Trunking

- The trunking for housing electrical switches and sockets along with 2 LAN Ports shall be made from 1.2 mm thick CRCA sheet with 60 – 80 microns pure epoxy powder coating.
- It should be available as single sided configurations (as per schedule of requirement) along with screwed caps.
- The front surface that houses the electrical points should have a slope.

Worktop

- Jet Black Granite worktop should be of 18 $\pm$ 2 mm thick.
- The front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 for the worktop 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.
- All front corners shall be smoothly curved; and sharp corners should be avoided.
- Tabletop and other components should have a colour approved by IIT Tirupati.

10. Granite top work bench without storage cabinet: : TYPE – C (25 nos):

Dimensions:

Length: **1500 mm ± 20 mm**
Width: **750 mm ± 20 mm**
Height: **750 mm ± 20 mm**

- Four numbers of 6/16 A power sockets should be provided for each table with MCB. (2 plug pins in a single socket).

Colour of coating choice to be provided (atleast 3 colours).

C-Frame System

- All C-Frames assemblies should be manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1993 (Indian Standard specification for steel tubes for furniture).
- All sheet metal components should be of CRCA confirming to IS Code 513:2016.
- C-frame should be constructed from a rectangular pipe with a cross section of 60 mm x 30 mm and should be 2 mm thick and should be without a vertical front leg to give a clean look.
- This shall provide more knee space or leg space and would facilitate uninterrupted lateral movement of the under-bench units within the bench run.
- The C-frame legs should be supplied with adjustable PVC nylon bush with high impact and vibration resistance (tolerance from -5 mm to +20 mm) to correct the unevenness of flooring.
- The structure should have a removable back panel to provide access for maintenance throughout the length of the table. The C-frame shall also have skirting at back bottom side.
- All framework should be pre-treated with superior pure epoxy powder coated finish.
- All steel components need to be pre-treated with an acid wash, anticorrosive treatment prior to powder coating.
- The entire framework should be done with pure 60-80 microns epoxy powder coating.
- Scratch-resistant Powder Coat of required colour for all metal approved by IIT Tirupati shall be provided.
- All the welding should be done using the electro-welding process only.

Horizontal Members

- CRCA Rectangular pipe of cross-section of 60 x 30 mm and 2 mm thickness shall be used with 60-80 microns pure epoxy powder coating.
- Horizontal members shall be connected using C-clamps/U-clamps with two adjacent C-Frames at a distance of 1520 mm together and that shall form the skeletal structure of the work bench on which the worktop can be placed.

Removable Back Panels

- Removable back panels cover the service lines that run behind them.
- These should be easily removable (unclipped) and the service line be accessed for maintenance. This allows the equipment on the workbench to remain undisturbed.
- They should be made of CRCA sheet 1.2 mm of thickness and provided with 60-80 microns pure epoxy powder coating.

Side Cover and Filler Panels

- All side cover and filler panels should be made from CRCA sheet of 1.2 mm thickness with 60 – 80 microns pure epoxy powder coating.

Electrical Trunking

- The trunking for housing electrical switches and sockets along with 2 LAN Ports shall be made from 1.2 mm thick CRCA sheet with 60 – 80 microns pure epoxy powder coating.
- It should be available as single sided configurations (as per schedule of requirement) along with screwed caps.
- The front surface that houses the electrical points should have a slope.

Worktop

- Jet Black Granite worktop should be of 18 ± 2 mm thick.
- The front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 for the worktop 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.
- All front corners shall be smoothly curved; and sharp corners should be avoided.
- Tabletop and other components should have a colour approved by IIT Tirupati.

11. Movable under bench cabinet: (05 nos)

Dimensions:

Length: **600 mm ± 20 mm**

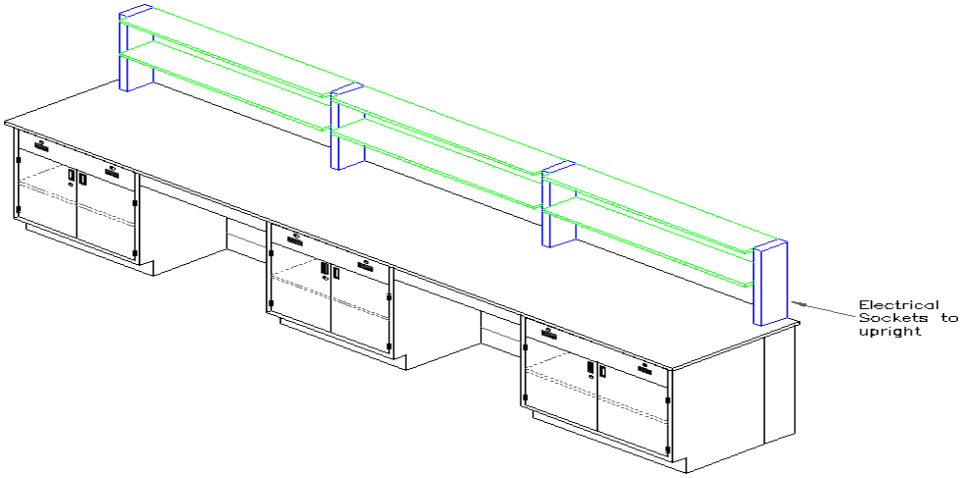
Depth: **530 mm ± 20 mm**

Height: **650 mm ± 20 mm**

- The material should be of galvanized iron sheets with powder coating pure epoxy thickness of 70-80 microns in a weld less construction or PP sheets.
- The cabinet should be excellent corrosion resistant and spillage proof against acid and alkaline solutions. Cabinet should be of square non-sharp edge construction.
- Module sheet thickness should be 1.2 mm or more or 8-10 mm or more thick if made of PP.
- The cabinet should consist of one drawer and two shutters as per the diagram. Drawer tray should be of single piece construction.
- The drawer trays should be mounted on telescopic slides capable of bearing a load of 45kg.

- Castor wheels with a locking system are to be provided. Provide Auto-closing type hinges in SS construction (hidden-type) with 180° opening.
- Should facilitate an adjustable shelves system.
- Aluminum flush handles are to be provided. Provide Lock with two keys each for drawer and shutter.

12. Reagent shelves on the work bench TYPE – A (08 nos):



Dimensions:

Length: **1200 mm ± 20 mm**

Depth: **250 mm ± 20 mm**

Height: **600 mm ± 20 mm**

- The reagent shelf should be of CRCA MS with pure 70-80 mic epoxy powder coating for chemical resistance.
- 2 rows should be provided for holding chemicals with the lowest row placed at a height of 320 mm.
- Vertical upright requires housing of electrical switches and sockets (2 nos. of 16 A sockets on one side of upright), data and voice points.

13. Reagent shelves on the work bench TYPE – B (18 nos):

Dimensions:

Length: **1500 mm ± 20 mm**

Depth: **250 mm ± 20 mm**

Height: **600 mm ± 20 mm**

- The reagent shelf should be of CRCA MS with pure 70-80 mic epoxy powder coating for chemical resistance.
- 2 rows should be provided for holding chemicals with the lowest row placed at a height of 320 mm.

- Vertical upright requires housing of electrical switches and sockets (2 nos. of 16 A sockets on one side of upright), data and voice points.

14. Reagent shelves on the work bench TYPE – C (50 nos):

Dimensions:

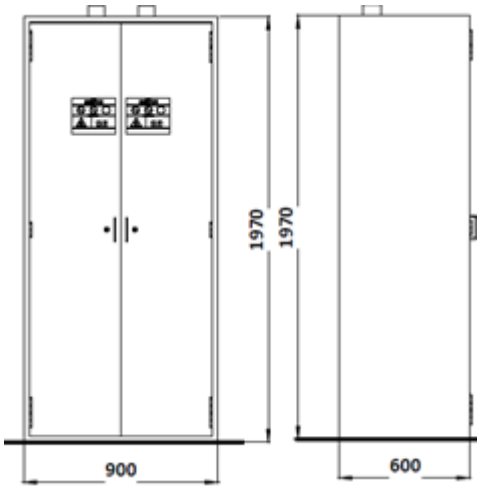
Length: **900 mm ± 20 mm**

Depth: **250 mm ± 20 mm**

Height: **600 mm ± 20 mm**

- The reagent shelf should be of CRCA MS with pure 70-80 mic epoxy powder coating for chemical resistance.
- 2 rows should be provided for holding chemicals with the lowest row placed at a height of 320 mm.
- Vertical upright requires housing of electrical switches and sockets (2 nos. of 16 A sockets on one side of upright), data and voice points.

15. Acid/Alkali storage cabinet (02 Nos):



Dimensions:

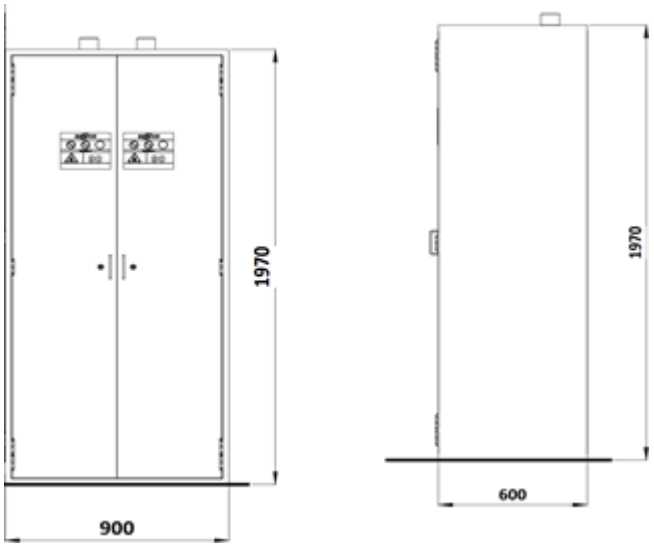
Length: **900 mm ± 20 mm**

Width: **600 mm ± 20 mm**

Height: **1970 mm ± 20 mm**

- The storage cabinet shall be made from PP and should have the Bi-fold self-close doors.
- Each Acid/corrosive resistant cabinet should have 90 gallons storage capacity. There should be 2 or more shelves/trays.
- A vent to remove the local fumes generated inside the acid storage cabinet should be provided.

16. Solvent Storage Cabinet (Flammable storage cabinet) (08 Nos):



Dimensions:

Length: **900 mm ± 20 mm**

Width: **600 mm ± 20 mm**

Height: **1970 mm ± 20 mm**

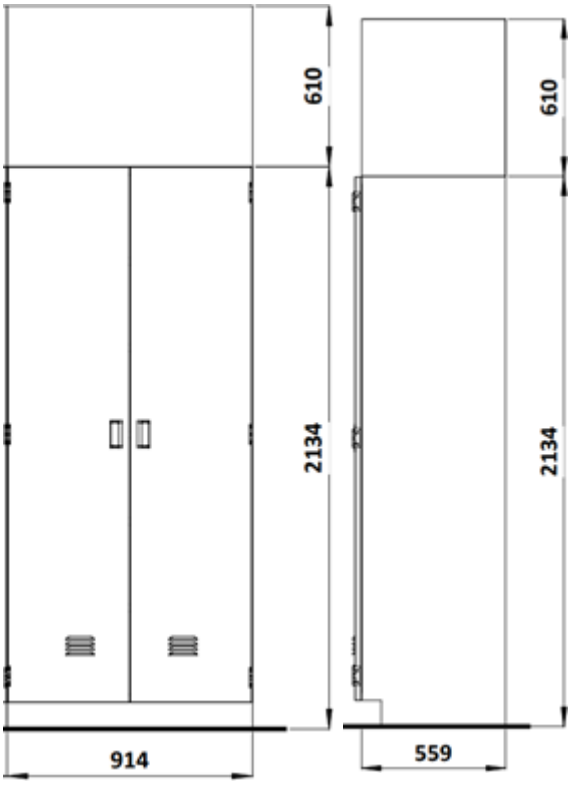
- The solvent storage cabinets should be NEPA (National Fire Protection Association), OSHA (Occupational Safety and Health Administration) and FM (Factory Mutual International) regulations certified.
- The storage cabinet should have the Bi-fold self-close doors.
- Should resist the fire for 90 minutes.
- Each solvent storage cabinet should have 90 gallons storage capacity. There should be 2 or more shelves/trays.
  i. FM approved 90minutes Fire rating approved as per (EN 14470-1, FM 6050, EN 14727 & UL1257) Solvent storage cabinets shall be UL labelled and specifically designed for the storage of flammable and combustible liquids.
  ii. Construction shall be based upon the requirements listed by UL, UFC, OSHA, and NFPA No. 30 – 1993. The bottoms, top, sides and doors shall be fabricated of 1.2mm thk steel and shall be all double panel construction with a 40mm air space between panels. All joints shall be welded, or screwed, to provide a rigid enclosure.
  iii. The doors shall swing on full-length stainless-steel piano hinges and shall be fully insulated. Loading capacity of Tray shelves shall be 75 kgs, 4nos of PP Trays shelves & 1 number Pan Collection. The right-hand door shall be equipped with a three-point latching device and the left-hand door shall have a full height astragal.

iv. The doors are self-closing and synchronized so that both doors will always fully close. The right-hand door is equipped with a three-point latching system that automatically engages when the doors close. Each door is equipped with a fusible-link hold-open feature that will ensure the door closes should the temperature outside the cabinet exceed 165 degrees Fahrenheit. Units 600mm long have only one door, self-closing, and equipped with a three-point latching system and hold- open feature.

v. A 50mm deep liquid tight pan that covers the entire bottom of the cabinet shall be furnished to contain liquid leaks and spills. A full-depth adjustable shelf is also provided. The shelf is perforated to allow air circulation within the cabinet.

vi. Two diametrically opposed vents with spark screens are provided in the back of the cabinet as well as a grounding screw. The cabinet shall have interior finish same as exterior. The cabinet shall be labeled: “FLAMMABLE – KEEP FIRE AWAY”.

17. Full Height Storage Cabinet: (77 nos)



Dimensions:

Length: **600 mm ± 20 mm**

Width: **900 mm ± 20 mm**

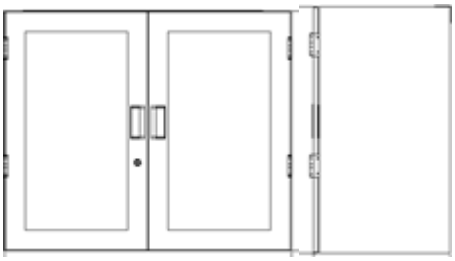
Height: **2000 mm ± 20 mm**

- Corrosive chemical resistant storage cabinets provided with ventilation to exhaust the localized fumes emanating from the chemicals stored inside.
- The storage cabinet must be constructed by using **1.2 mm or more CRCA Mild steel with pure Epoxy powder coating**.
- Cabinet should have the float glass to give proper visibility inside the cabinet.
- Louvers/perforations must be provided at the bottom for air supply.
- The racks should be adjustable to different heights to accommodate different sized chemicals/ solvents.
    i. Swinging door full height storage cabinets shall have a completely finished interior same as exterior.
    ii. End uprights shall be formed at the front in a 25 mm channel formation with the inside flange formed to provide a 775/800mmx 12.5 mm door recess.
    iii. The back of the upright shall be formed to a 62 mm formation. A 1.6 mm thick hinge reinforcement, same as specified for BASE CABINETS, shall be welded to the inner side of front uprights.
    iv. Cabinet tops shall be formed into a 25 mm x 1.5 mm channel shape at front, with a 775/800 mm x 12.5 mm offset for door recess, and with flange at rear and sides for electro welding cabinet top to cabinet back and ends.
    v. Cabinet bottoms for storage cabinets shall be formed down on sides and back to create a square edge transition welded to cabinet end panels, and front edge shall be offset to create a seamless drawer and door recess rabbet for dust stop.
    vi. Cabinet bottoms shall be formed to provide a flush 25 mm face rail with a return flange to give a 14 mm deep x 125 mm high toe space.
    vii. Cabinet backs shall be welded to the top, bottom and ends. Backs shall be perforated for shelf adjustment holes on not more than 25 mm centers. Holes shall be set in a channel formation in cabinet back and enclosed by end uprights.
    viii. Adjustable shelves shall be formed down 19 mm, returned back 22 mm and up 6 mm into a channel formation front and rear, formed down 19 mm at each end, shelves over 1050 mm long shall be further reinforced with a channel formation welded to underside of shelf.
    ix. Toe space rails shall interlock in back of bottom rail and with end panel to provide a welding plate and shall extend to the floor with a flange turned back 13mm and turned up 9mm for support.
    x. Glazed swinging doors shall be 19mm thick and consist of an inner and outer door pan welded to form a single unit. Outer door pan shall be 1.2 mm thick steel, formed into a channel or flanged shape at all four sides. It shall be pierced and formed to create a 75 mm wide frame with a bevelled edge around the glass opening in the center of the door. Inner door pan shall be 1.2 mm thick steel,

flanged at all four sides, pierced for a glass opening in the center of the door, with a 1.6 mm thick hinge reinforcements welded in place. Doors shall be glazed with 6mm thick toughened glass, held in place by a rubber or vinyl gasket around the entire edge of the glass. Outer door pan shall be pierced for a recessed flush pull, as described under HARDWARE.

xi. Solid panel swinging doors (two-piece) shall consist of an inner and outer pan formation, mechanically assembled after painting. All exterior surfaces shall be welded and ground smooth. Inner door pan shall be flanged for mechanical assembly. Door shall have a 2 mm thick hinge reinforcement welded at the hinge slot; as well as a full-height channel formation welded to the inner pan. Doors shall be 19mm thick with sound deadening material.

18. Double Door Wall Mounted Storage Cabinets (278 nos):



Dimensions:

Length: **750 mm ± 10 mm**

Width: **400 mm ± 10 mm**

Height: **750 mm ± 10 mm**

Front and side view of the wall mounted storage cabinet with measurements (± 10 mm error).

- All the cabinets must be rigidly fixed to the civil wall above the wall side work bench.
- The material should be of galvanized iron sheets/CRCA sheets with powder coating pure epoxy thickness of **70-80 microns** in a weld less construction.
- The cabinet should be excellent corrosion resistant and spillage proof against acid and alkaline solutions. Cabinet should be of square non-sharp edge construction.
- Module sheet thickness should be **1 to 1.6 mm**. The cabinet should consist of one drawer and two shutters as per the diagram.
- Drawer tray should be of single piece construction. The drawer trays should be mounted on telescopic slides capable of **bearing a load of 45 kg**.
- Provide Auto-closing type hinges in SS construction (hidden-type) with 135° opening. Should facilitate an adjustable shelves system.

- Aluminium flush handles are to be provided. Provide Lock with two keys each for drawer and shutter. Storage cabinet under the sink is of 750 mm width to accommodate the drainage tank of the sink.
- Movable or adjustable shelves should be provided to accommodate different size chemical boxes/bottles.
- Upper cabinets shall have a completely finished interior same as exterior and shall be designed so that no mounting hardware is visible when installed.
- End uprights shall be formed at front, bottom and back to provide maximum strength and rigidity. Front edge of end upright shall be 3/4" wide. A pilaster shall be added to the inside front of the upright for cabinet and hinge reinforcement and shall be perforated for hinge screws, and shelf adjustment holes.
- Cabinet tops shall be formed with a 7/8 & quot; high C formation at the front edge and turned down at the back to engage a wall hanging rail.
- Cabinet flush bottoms shall be formed with a 7/8 & quot; high C formation at the front edge.
- Cabinet false bottoms shall be formed down on all four edges and shall be removable.
- Cabinet backs shall be welded to the top, bottom and ends. Backs shall be perforated for shelf adjustment holes. Holes shall be enclosed by end uprights.
- Adjustable shelves shall be formed down 3/4 & quot; returned back 7/8 & quot; and up 1/4 & quot; into a channel formation front and rear, formed down 3/4 & quot; at each end. Shelves over 42 & quot; long shall be further reinforced with a channel formation welded to underside of shelf. Shelves shall be adjustable on not more than 1 & quot; increments. Glazed doors shall be 3/4& quot; thick and consist of an inner and outer door pan welded together to form a single unit. Outer door pan shall be 18 gauge steel, formed into a channel or flanged shape at all four sides. It shall be pierced and formed to create a 3 & quot; wide frame with a beveled edge around the glass opening in the center of the door. Inner door pan shall be 18 gauge steel, flanged at all four sides, and pierced for a glass opening in the center of the door. Glass shall be held in place by a rubber or vinyl gasket around the entire edge of the glass. Doors shall be glazed with 1/8 & quot; float glass.
- Swinging doors under 36 & quot; high shall be hung on one pair of hinges, doors over 36 & quot; high shall be hung on three hinges.

19. Gas Cylinder Cabinet: (31 nos)

Dimensions:

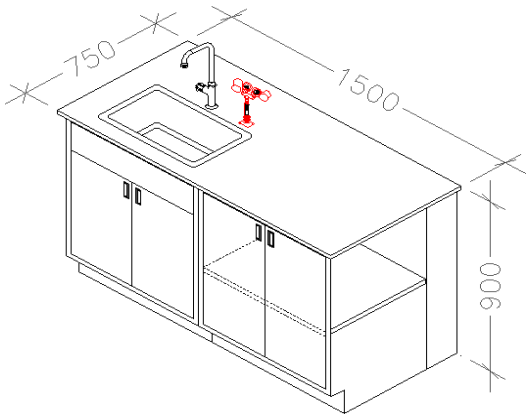
Length: **1200-1400 mm ± 10 mm**

Width: **500 mm ± 10 mm**

Height: **2000 mm ± 10 mm**

- The gas cylinder storage cabinet must be 90-minute fire resistant and GS Certified. Certified to EN 14470-2 (G30 to G90) standard.
- Complete with mounting rails, cylinder retainer and matching tension belts and rolling ramp with pneumatic damper.
- Provision of ventilation and visualization from outside (option to see from outside) should be also provided for each storage cabinet. Gas leak sensors has to be provided. Complete with mounting rails, cylinder retainer and matching tension belts, rolling ramp with pneumatic damper. Option of pipe lead-through and Compatible locking system should be provided.
- An accessory gas cylinder trolley has to be provided to carry a 50 L volume cylinder.

20. Granite Top workbench with sink and peg board TYPE – A (08 nos):



Dimensions: (Table)
Length: **1500 mm ± 20 mm**
Width: **900 mm ± 20 mm**
Height: **900 mm ± 10 mm**

Dimensions: (Sink)
Length: **560 mm ± 20 mm**
Width: **360 mm ± 20 mm**
Height: **300 mm ± 10 mm**

(a) Workbench:

- SEFA 8M Compliant Plinth/ Floor Mounted Cabinets Flush face construction. Fully welded with doors and drawers in the same plane as the cabinet face frame without overlap with 1.2 mm thick cold rolled close annealed (CRCA) steel sheets in the main frame and 1.2 mm in other secondary members complying with the relevant IS/BS/ASTM codes and standards as per drawing no.
- The cabinets shall be designed and built to withstand a uniformly distributed load of 900kg/m^3 of cabinet top area including working surface without distortion or interference with door and drawers' operation. Cabinet corners where levelling boils intersect horizontal gussets shall support 225 kg per corner at 1 ½ inch (38mm) projection of the levelling below the gusset.
- Drawer assembles shall automatically maintain alignment in cabinet opening and shall not bend during opening or closing of the drawer.
- The drawers' assemblies shall withstand the drawer cycle test 45Kgs weight loaded in drawer for 50,000 cycles.
- Swinging doors/ Shutters assembly shall be twist resistant and rigid and shall close in a flat plane against the cabinet to permit the door catch at top of the door to function properly.
- The door or shutters assembly shall withstand the Door Cycle test 90kg hanging on shutter for 1,00,000 cycles.
- Cycle test shall allow nominal temporary deflection, but no permanent distortion.
- The cabinets will be pre-treated with an environmentally friendly, electro-statically applied pure epoxy powder-coated finish with thickness of 60-80 microns.
- All frame-work, cover panels, back panels, and other components in the workbench should be pre-treated with superior pure 60-80-micron epoxy powder coated finish. The metal panels should be 1.2 mm or thicker.
- The worktop should be 18/19 mm thick jet black granite and the front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 structure should have the removable back panel to provide access for maintenance throughout the length of the table.
- Stainless steel finish handles shall be of recess – type.
- The units have a locking facility with 90/180 degree, lock mechanism (expect for sink).

- Hinges shall be made from grade 304 stainless steel. Hinges shall be attached to both the door and case with three screws through each leaf (Welding of hinges to door or case shall not be permitted) Doors less than 36" in height shall be hung on one pair of hinges and doors over 36" height shall be hung on 3 hinges.
- The hinges shall conform to Hinge Test 90kg weight hanging on shutter for 50,000 cycles.
- Cabinet combination of 1 drawer and 1 or 2 shutter shall be as per configuration drawing enclosed.
- Fixed storage cabinet: All the cabinets are rigidly fixed to the working bench as per drawing at specified location. The material should be of galvanized iron sheet with powder coating pure epoxy thickness of 60-80 microns in a weld less construction. The cabinet should be excellent corrosion resistant and spillage proof against acid and alkali solutions. The cabinet should be of square, non-sharp edge construction. Module sheet thickness should be 1.2 mm or more. Drawer tray should be of single piece construction. The drawer trays should be mounted on the telescopic slides, capable of bearing a load of 45 kg. provide auto closing type hinges in SS construction (hidden type) with 180 degree opening. Should facilitate an adjustable shelve system. Aluminium flush handles are to be provided. Provide lock with two keys for drawer and shutter.

Horizontal Members

- CRCA Rectangular pipe of cross-section of 60 x 30 mm and 2 mm thickness shall be used with 60-80 microns pure epoxy powder coating.
- Horizontal members shall be connected using C-clamps/U-clamps with two adjacent C-Frames at a distance of 1520 mm together and that shall form the skeletal structure of the work bench on which the worktop can be placed.

Removable Back Panels

- Removable back panels cover the service lines that run behind them.
- These should be easily removable (unclipped) and the service line be accessed for maintenance. This allows the equipment on the workbench to remain undisturbed.
- They should be made of CRCA sheet 1.2 mm of thickness and provided with 60-80 microns pure epoxy powder coating.

Side Cover and Filler Panels

- All side cover and filler panels should be made from CRCA sheet of 1.2 mm thickness with 60 – 80 microns pure epoxy powder coating.

(b) Polypropylene Molded Sinks:

- Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic and inorganic solvents. Standard bowl size (W x D X H) is 560 x 355 X 300 mm. Faucet should be a 3-way type faucet of approved make.

(c) Pegboard:

- Single faced stainless-steel pegboard having a tray hole for water drainage and detachable pegs. The essence is made up of 1 mm thick stainless steel (SS 304) or 12 mm

thick Acrylic whereas the pegs are made up of polypropylene and are adjustable with a minimum 10 mm distance between each peg (L x W x H is 750 x 750).

(d) Eye Washer:

- An eye-wash fountain with two gentle spray heads which are mounted parallel to each other and slightly bent forward should be provided.
- A self-closing valve with a stainless steel squeeze handle and a locking clip to hold the valve open should be provided.
- Pressure pump should be provided for all the eye-wash fountains to give sufficient pressure to fountain the water.

21. Granite Top workbench with sink and peg board TYPE – B (12 Nos)

Dimensions: (Table) Length:
1500 mm ± 20 mm Width:
760 mm ± 20 mm Height:
900 mm ± 10 mm

Dimensions: (Sink)
Length: **600 mm ± 20 mm**
Width: **360 mm ± 20 mm**
Height: **300 mm ± 10 mm**

(e) Workbench:

- SEFA 8M Compliant Plinth/ Floor Mounted Cabinets Flush face construction. Fully welded with doors and drawers in the same plane as the cabinet face frame without overlap with 1.2 mm thick cold rolled close annealed (CRCA) steel sheets in the main frame and 1.2 mm in other secondary members complying with the relevant IS/BS/ASTM codes and standards as per drawing no.
- The cabinets shall be designed and built to withstand a uniformly distributed load of 900kg/m^3 of cabinet top area including working surface without distortion or interference with door and drawers' operation. Cabinet corners where levelling boils intersect horizontal gussets shall support 225 kg per corner at 1 ½ inch (38mm) projection of the levelling below the gusset.
- Drawer assembles shall automatically maintain alignment in cabinet opening and shall not bend during opening or closing of the drawer.
- The drawers' assemblies shall withstand the drawer cycle test 45Kgs weight loaded in drawer for 50,000 cycles.
- Swinging doors/ Shutters assembly shall be twist resistant and rigid and shall close in a flat plane against the cabinet to permit the door catch at top of the door to function properly.
- The door or shutters assembly shall withstand the Door Cycle test 90kg hanging on shutter for 1,00,000 cycles.
- Cycle test shall allow nominal temporary deflection, but no permanent distortion.
- The cabinets will be pre-treated with an environmentally friendly, electro-statically applied pure epoxy powder-coated finish with thickness of 60-80 microns.

- All frame-work, cover panels, back panels, and other components in the workbench should be pre-treated with superior pure 60-80-micron epoxy powder coated finish. The metal panels should be 1.2 mm or thicker.
- The worktop should be 18/19 mm thick jet black granite and the front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 structure should have the removable back panel to provide access for maintenance throughout the length of the table.
- Stainless steel finish handles shall be of recess – type.
- The units have a locking facility with 90/180 degree, lock mechanism (expect for sink).
- Hinges shall be made from grade 304 stainless steel. Hinges shall be attached to both the door and case with three screws through each leaf (Welding of hinges to door or case shall not be permitted) Doors less than 36" in height shall be hung on one pair of hinges and doors over 36" height shall be hung on 3 hinges.
- The hinges shall conform to Hinge Test 90kg weight hanging on shutter for 50,000 cycles.
- Cabinet combination of 1 drawer and 1 or 2 shutter shall be as per configuration drawing enclosed.
- Fixed storage cabinet: All the cabinets are rigidly fixed to the working bench as per drawing at specified location. The material should be of galvanized iron sheet with powder coating pure epoxy thickness of 60-80 microns in a weld less construction. The cabinet should be excellent corrosion resistant and spillage proof against acid and alkali solutions. The cabinet should be of square, non-sharp edge construction. Module sheet thickness should be 1.2 mm or more. Drawer tray should be of single piece construction. The drawer trays should be mounted on the telescopic slides, capable of bearing a load of 45 kg. provide auto closing type hinges in SS construction (hidden type) with 180 degree opening. Should facilitate an adjustable shelve system. Aluminium flush handles are to be provided. Provide lock with two keys for drawer and shutter.

Horizontal Members

- CRCA Rectangular pipe of cross-section of 60 x 30 mm and 2 mm thickness shall be used with 60-80 microns pure epoxy powder coating.
- Horizontal members shall be connected using C-clamps/U-clamps with two adjacent C-Frames at a distance of 1520 mm together and that shall form the skeletal structure of the work bench on which the worktop can be placed.

Removable Back Panels

- Removable back panels cover the service lines that run behind them.
- These should be easily removable (unclipped) and the service line be accessed for maintenance. This allows the equipment on the workbench to remain undisturbed.
- They should be made of CRCA sheet 1.2 mm of thickness and provided with 60-80 microns pure epoxy powder coating.

Side Cover and Filler Panels

- All side cover and filler panels should be made from CRCA sheet of 1.2 mm thickness with 60 – 80 microns pure epoxy powder coating.

(f) Polypropylene Molded Sinks:

- Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic and inorganic solvents. Standard bowl size (W x D X H) is 560 x 355 X 300 mm. Faucet should be a 3-way type faucet of approved make.

(g) Pegboard:

- Single faced stainless-steel pegboard having a tray hole for water drainage and detachable pegs. The essence is made up of 1 mm thick stainless steel (SS 304) or 12 mm thick Acrylic whereas the pegs are made up of polypropylene and are adjustable with a minimum 10 mm distance between each peg (L x W x H is 750 x 750).

(h) Eye Washer:

- An eye-wash fountain with two gentle spray heads which are mounted parallel to each other and slightly bent forward should be provided.
- A self-closing valve with a stainless steel squeeze handle and a locking clip to hold the valve open should be provided.
- Pressure pump should be provided for all the eye-wash fountains to give sufficient pressure to fountain the water.

22. Granite Top workbench with sink and peg board TYPE – C (02 nos)

Dimensions: (Table)
Length: **1200 mm ± 20 mm**
Width: **900 mm ± 20 mm**
Height: **900 mm ± 10 mm**

Dimensions: (Sink)
Length: **560 mm ± 20 mm**
Width: **360 mm ± 20 mm**
Height: **300 mm ± 10 mm**

(i) Workbench:

- SEFA 8M Compliant Plinth/ Floor Mounted Cabinets Flush face construction. Fully welded with doors and drawers in the same plane as the cabinet face frame without overlap with 1.2 mm thick cold rolled close annealed (CRCA) steel sheets in the main frame and 1.2 mm in other secondary members complying with the relevant IS/BS/ASTM codes and standards as per drawing no.
- The cabinets shall be designed and built to withstand a uniformly distributed load of 900kg/m^3 of cabinet top area including working surface without distortion or interference with door and drawers' operation. Cabinet corners where levelling boils intersect horizontal gussets shall support 225 kg per corner at 1 ½ inch (38mm) projection of the levelling below the gusset.

- Drawer assembles shall automatically maintain alignment in cabinet opening and shall not bend during opening or closing of the drawer.
- The drawers' assemblies shall withstand the drawer cycle test 45Kgs weight loaded in drawer for 50,000 cycles.
- Swinging doors/ Shutters assembly shall be twist resistant and rigid and shall close in a flat plane against the cabinet to permit the door catch at top of the door to function properly.
- The door or shutters assembly shall withstand the Door Cycle test 90kg hanging on shutter for 1,00,000 cycles.
- Cycle test shall allow nominal temporary deflection, but no permanent distortion.
- The cabinets will be pre-treated with an environmentally friendly, electro-statically applied pure epoxy powder-coated finish with thickness of 60-80 microns.
- All frame-work, cover panels, back panels, and other components in the workbench should be pre-treated with superior pure 60-80-micron epoxy powder coated finish. The metal panels should be 1.2 mm or thicker.
- The worktop should be 18/19 mm thick jet black granite and the front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 structure should have the removable back panel to provide access for maintenance throughout the length of the table.
- Stainless steel finish handles shall be of recess – type.
- The units have a locking facility with 90/180 degree, lock mechanism (expect for sink).
- Hinges shall be made from grade 304 stainless steel. Hinges shall be attached to both the door and case with three screws through each leaf (Welding of hinges to door or case shall not be permitted) Doors less than 36" in height shall be hung on one pair of hinges and doors over 36" height shall be hung on 3 hinges.
- The hinges shall conform to Hinge Test 90kg weight hanging on shutter for 50,000 cycles.
- Cabinet combination of 1 drawer and 1 or 2 shutter shall be as per configuration drawing enclosed.
- Fixed storage cabinet: All the cabinets are rigidly fixed to the working bench as per drawing at specified location. The material should be of galvanized iron sheet with powder coating pure epoxy thickness of 60-80 microns in a weld less construction. The cabinet should be excellent corrosion resistant and spillage proof against acid and alkali solutions. The cabinet should be of square, non-sharp edge construction. Module sheet thickness should be 1.2 mm or more. Drawer tray should be of single piece construction. The drawer trays should be mounted on the telescopic slides, capable of bearing a load of 45 kg. provide auto closing type hinges in SS construction (hidden type) with 180 degree opening. Should facilitate an adjustable shelve system. Aluminium flush handles are to be provided. Provide lock with two keys for drawer and shutter.

Horizontal Members

- CRCA Rectangular pipe of cross-section of 60 x 30 mm and 2 mm thickness shall be used with 60-80 microns pure epoxy powder coating.
- Horizontal members shall be connected using C-clamps/U-clamps with two adjacent C-Frames at a distance of 1520 mm together and that shall form the skeletal structure of the work bench on which the worktop can be placed.

Removable Back Panels

- Removable back panels cover the service lines that run behind them.
- These should be easily removable (unclipped) and the service line be accessed for maintenance. This allows the equipment on the workbench to remain undisturbed.
- They should be made of CRCA sheet 1.2 mm of thickness and provided with 60-80 microns pure epoxy powder coating.

Side Cover and Filler Panels

- All side cover and filler panels should be made from CRCA sheet of 1.2 mm thickness with 60 – 80 microns pure epoxy powder coating.

(j) Polypropylene Molded Sinks:

- Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic and inorganic solvents. Standard bowl size (W x D X H) is 560 x 355 X 300 mm. Faucet should be a 3-way type faucet of approved make.

(k) Pegboard:

- Single faced stainless-steel pegboard having a tray hole for water drainage and detachable pegs. The essence is made up of 1 mm thick stainless steel (SS 304) or 12 mm thick Acrylic whereas the pegs are made up of polypropylene and are adjustable with a minimum 10 mm distance between each peg (L x W x H is 750 x 750).

(l) Eye Washer:

- An eye-wash fountain with two gentle spray heads which are mounted parallel to each other and slightly bent forward should be provided.
- A self-closing valve with a stainless steel squeeze handle and a locking clip to hold the valve open should be provided.
- Pressure pump should be provided for all the eye-wash fountains to give sufficient pressure to fountain the water.

23. Granite Top workbench with sink and peg board TYPE – D (01 nos)

Dimensions: (Table)
Length: **750 mm ± 20 mm**
Width: **900 mm ± 20 mm**
Height: **900 mm ± 10 mm**

Dimensions: (Sink)
Length: **560 mm ± 20 mm**
Width: **360 mm ± 20 mm**
Height: **300 mm ± 10 mm**

(m) Workbench:

- SEFA 8M Compliant Plinth/ Floor Mounted Cabinets Flush face construction. Fully welded with doors and drawers in the same plane as the cabinet face frame without overlap with 1.2 mm thick cold rolled close annealed (CRCA) steel sheets in the main frame and 1.2 mm in other secondary members complying with the relevant IS/BS/ASTM codes and standards as per drawing no.
- The cabinets shall be designed and built to withstand a uniformly distributed load of 900kg/m^3 of cabinet top area including working surface without distortion or interference with door and drawers' operation. Cabinet corners where levelling boils intersect horizontal gussets shall support 225 kg per corner at 1 ½ inch (38mm) projection of the levelling below the gusset.
- Drawer assembles shall automatically maintain alignment in cabinet opening and shall not bend during opening or closing of the drawer.
- The drawers' assemblies shall withstand the drawer cycle test 45Kgs weight loaded in drawer.
- Swinging doors/ Shutters assembly shall be twist resistant and rigid and shall close in a flat plane against the cabinet to permit the door catch at top of the door to function properly.
- The door or shutters assembly shall withstand the Door Cycle test 90kg hanging.
- Cycle test shall allow nominal temporary deflection, but no permanent distortion.
- The cabinets will be pre-treated with an environmentally friendly, electro-statically applied pure epoxy powder-coated finish with thickness of 60-80 microns.
- All frame-work, cover panels, back panels, and other components in the workbench should be pre-treated with superior pure 60-80-micron epoxy powder coated finish. The metal panels should be 1.2 mm or thicker.
- The worktop should be 18/19 mm thick jet black granite and the front edge of the granite must be chamfered properly at an angle of 28 degrees and should be properly 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 structure should have the removable back panel to provide access for maintenance throughout the length of the table.
- Stainless steel finish handles shall be of recess – type.
- The units have a locking facility with 90/180 degree, lock mechanism (expect for sink).
- Hinges shall be made from grade 304 stainless steel. Hinges shall be attached to both the door and case with three screws through each leaf (Welding of hinges to door or case shall not be permitted) Doors less than 36" in height shall be hung on one pair of hinges and doors over 36" height shall be hung on 3 hinges.
- The hinges shall conform to Hinge Test 90kg weight hanging on shutter for 50,000 cycles.
- Cabinet combination of 1 drawer and 1 or 2 shutter shall be as per configuration drawing enclosed.
- Fixed storage cabinet: All the cabinets are rigidly fixed to the working bench as per drawing at specified location. The material should be of galvanized iron sheet with powder coating pure epoxy thickness of 60-80 microns in a weld less construction. The cabinet should be excellent corrosion resistant and spillage proof against acid and alkali solutions. The cabinet should be of square, non-sharp edge construction.

Module sheet thickness should be 1.2 mm or more. Drawer tray should be of single piece construction. The drawer trays should be mounted on the telescopic slides, capable of bearing a load of 45 kg. provide auto closing type hinges in SS construction (hidden type) with 180 degree opening. Should facilitate an adjustable shelve system. Aluminium flush handles are to be provided. Provide lock with two keys for drawer and shutter.

Horizontal Members

- CRCA Rectangular pipe of cross-section of 60 x 30 mm and 2 mm thickness shall be used with 60-80 microns pure epoxy powder coating.
- Horizontal members shall be connected using C-clamps/U-clamps with two adjacent C-Frames at a distance of 1520 mm together and that shall form the skeletal structure of the work bench on which the worktop can be placed.

Removable Back Panels

- Removable back panels cover the service lines that run behind them.
- These should be easily removable (unclipped) and the service line be accessed for maintenance. This allows the equipment on the workbench to remain undisturbed.
- They should be made of CRCA sheet 1.2 mm of thickness and provided with 60-80 microns pure epoxy powder coating.

Side Cover and Filler Panels

- All side cover and filler panels should be made from CRCA sheet of 1.2 mm thickness with 60 – 80 microns pure epoxy powder coating.

(n) Polypropylene Molded Sinks:

- Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic and inorganic solvents. Standard bowl size (W x D X H) is 560 x 355 X 300 mm. Faucet should be a 3-way type faucet of approved make.

(o) Pegboard:

- Single faced stainless-steel pegboard having a tray hole for water drainage and detachable pegs. The essence is made up of 1 mm thick stainless steel (SS 304) or 12 mm thick Acrylic whereas the pegs are made up of polypropylene and are adjustable with a minimum 10 mm distance between each peg (L x W x H is 750 x 750).

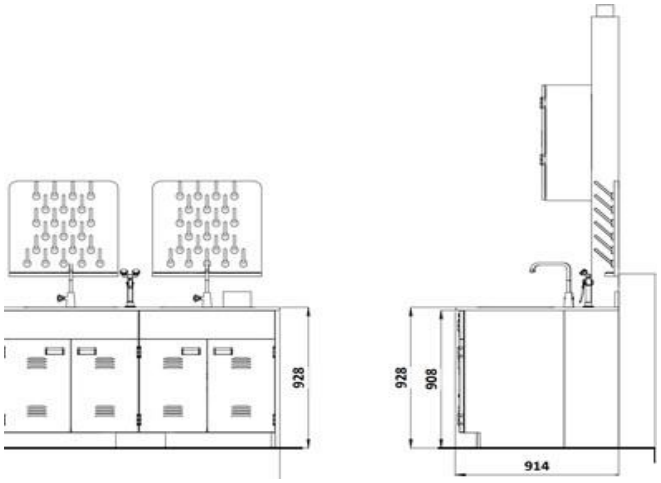
(p) Eye Washer:

- An eye-wash fountain with two gentle spray heads which are mounted parallel to each other and slightly bent forward should be provided.
- A self-closing valve with a stainless steel squeeze handle and a locking clip to hold the valve open should be provided.

Pressure pump should be provided for all the eye-wash fountains to give sufficient

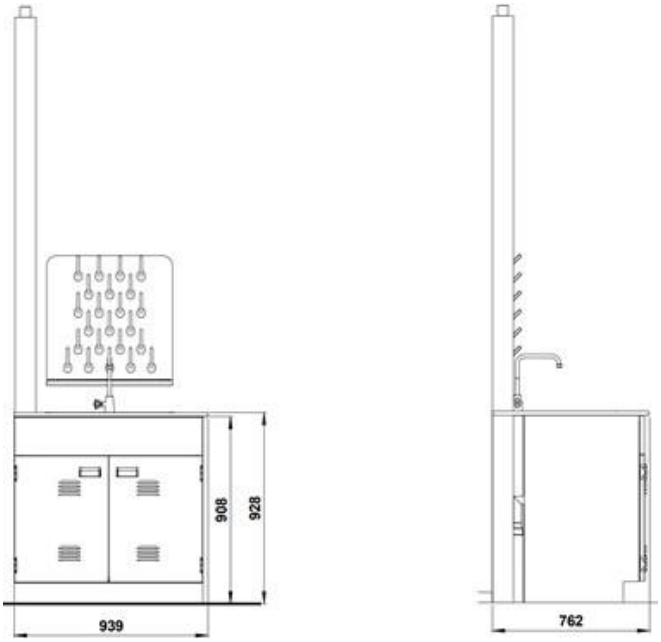
- pressure to fountain the water.

24. Double Sink with granite top and peg board (01 nos)



Dimensions:
Length: **1500 mm ± 20 mm**
Width: **900 mm ± 20 mm**
Height: **900 mm ± 20 mm**

25. Single Sink with peg board (41 nos)



Dimensions:

Dimensions:

Length: **900 mm ± 20 mm**
Width: **760 mm ± 20 mm**
Height: **900 mm ± 20 mm**

Sink Dimensions: 560 mm x 355 mm x 245 mm

Should be made up of injection moulded from pure polyolefins/ co-polymer material with inside corners coved, rectangular without border, having good resistance to organic solvents. Overall size (L x W x D) varies as per the BOQ.

Pegboard:

Single faced stainless-steel pegboard having a tray hole for water drainage and detachable pegs. The essence is made up of 1 mm thick stainless steel (SS 304) or 12 mm thick Acrylic whereas the pegs are made up of polypropylene and are adjustable with a minimum 10mm distance between each peg (L x W x H is 750 x 750).

26. Laboratory stools (182 nos):

- Laboratory stool with back support and footrest. Revolving chair with adjustable height. Should be at least 16 inch dia for the sitting space.

27. Anti-Vibration Tables Type – A (18 nos)

Dimensions:
Length: **1200 mm ± 20 mm**
Width: **900 mm ± 20 mm**
Height: **900 mm ± 20 mm**

- These tables are meant for instruments where accuracy of readings or performance is affected by vibrations from ground. The load capacity of the frame is at least 250 kg UDL. The table is made up of powder coated tubular frame with cover panels, granite top and adjustable anti-static rubber pads at the bottom. The frame 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.
- A completely passive 6 degree of freedom system requiring NO Air and NO Electricity.
- Vertical Load Adjustment Crank makes manual adjustments for changes in vertical load simple.
- Leveling Jack with anti-vibration pads for clearing floor errors.
- Easily determine optimum setting using this simple visual Vertical Load Adjustment Indicator.
- Dial in Guaranteed 1/2 Hz or less Vertical natural frequency using the simple Vertical Stiffness Adjustment Screw.

28. Anti-Vibration Tables Type – B (04 nos):

Dimensions:
Length: **1500 mm ± 20 mm**
Width: **900 mm ± 20 mm**
Height: **900 mm ± 20 mm**

- These tables are meant for instruments where accuracy of readings or performance is affected by vibrations from ground. The load capacity of the frame is at least 250 kg UDL.

The table is made up of powder coated tubular frame with cover panels, granite top and adjustable anti-static rubber pads at the bottom. The frame 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.

- A completely passive 6 degree of freedom system requiring NO Air and NO Electricity.
- Vertical Load Adjustment Crank makes manual adjustments for changes in vertical load simple.
- Leveling Jack with anti-vibration pads for clearing floor errors.
- Easily determine optimum setting using this simple visual Vertical Load Adjustment Indicator.
- Dial in Guaranteed 1/2 Hz or less Vertical natural frequency using the simple Vertical Stiffness Adjustment Screw.

29. Trolly for Gas cylinders(50L) Type – A (06 nos)

One Cylinder Trolly

30. Trolly for Gas cylinders(50L) Type – B (02 nos)

Two Cylinder Trolly

31. Safety shower with Eye wash (15 nos)

- An eye-wash fountain with two gentle spray heads which are mounted parallel to each other and slightly bent forward should be provided.
- A self-closing valve with a stainless steel squeeze handle and a locking clip to hold the valve open should be provided.
- Stand-alone or ceiling-mounted safety shower with a 10” diameter shower head having a stay-open ball valve made of brass.
- Pressure pumps should be provided for all the eye-wash and safety shower fountains to give sufficient pressure to fountain the water.

32. Shoe Rack (16 nos)

Dimensions:
Length: **1200 mm ± 20 mm**
Width: **450 mm ± 20 mm**
Height: **900 mm ± 20 mm**

- The unit should have 2 shelves with a spacing of 0.6 m.
- The material should be pre-laminated wooden boards and durable.
- Should have proper ventilation at the back side of the cabinet to maintain air circulation to

prevent odour generated by shoes.

- Portable and should contain wheels.

33. Student storage cabinet (14 nos)

- Overall size of the pigeon hole metallic rack should be not less than 1850 mm (H) x 450 mm (D) x 380 mm (W) containing 4 racks of 450 mm height.
- Thickness of the sheet should be minimum 2 mm. Adequate ground clearance must be provided. Should be neatly welded, surfaced and polished.
- The door should be with magnetic latch with option to lock with key.
- Racks should be Epoxy polyester powder coated with a thickness of 50 microns.
- Should provide aesthetically appealing Snap fit ABS plastic handle and plastic label holder for identification.

Important Instruction:

"Splitting of items is not allowed. Bidders should quote for all the items"
The bidder must quote for all the items otherwise the bid will be summarily rejected. The tender is not to be awarded in piecemeal and item-wise to the firm. The Evaluation will be based on the total value.

- **All offered products' technical Specifications and Brochures are to be submitted along with the Technical Bid.**
- **The detailed scope of coverage of the Warranty shall be provided in the compliance statement -Annexure-VII.**

3. TENDER FEE & BID SECURITY DECLARATION DETAILS:

3.1 A tender Fee of Rs.2500/- (Rupees Two thousand five hundred only) should be submitted through ECS (Bank transfer / NEFT / RTGS) in favor of the Indian Institute of Technology Tirupati.

3.2 Bank A/c Details for crediting Tender Fee:

Name : Indian Institute of Technology Tirupati Main Account

Bank : State Bank of India
Account No : 35523338208
IFSC Code : SBIN0006677

3.3 Tender Fee and Bid Security Exemption:

I) **Micro and Small Enterprises (MSEs):**

Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) **for goods produced and services rendered**, are exempted from Tender fee and Bid Security. However, they must enclose **valid self-attested registration certificate(s)** and the tender to this effect.

Accordingly, MSEs shall be required to submit valid **Udyam Registration Certificate** for availing benefit under MSE Procurement Policy.

The benefit as above to MSEs shall be available only for Goods produced and services rendered by MSEs. However, traders are excluded from the purview of MSE Procurement Policy.

II) **Startup (s):**

Startup(s) as recognized by **Department for Promotion of Industry and Internal Trade (DPIIT)**, Govt. of India, are exempted from Tender fee and Bid Security. However, they have to enclose ***valid self-attested registration certificate(s)*** along with the tender to this effect.

Eligible MSE and startup bidders who seeks exemption from Tender fee/Bid Security as per clause no. (c) above, if they withdraw or modify their bids during the period of validity, or if they are awarded the contract and they fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document, they will be suspended for the period of three years or as decided by the competent authority from being eligible to submit bids for contracts with the entity that invited the bids.

3.4 Other than eligible MSE and Startup bidders, Bid Security Declaration:

Bidders should have to submit the Bid Security Declaration (As per the format attached in annexure-II) in duly filled and signed condition.

3.5 The Bidders will have to upload scanned copy of Payment details towards tender fee and the same will be accepted only on verification and confirmation by the

Institute. Any delay in credit will not be entertained by the Institute. **(As per the format attached in Annexure – I)**

4. ELIGIBILITY CRITERIA

4.1 Other Important Documents (OIDs)

Firm Incorporation Certificate, PAN details, GST details are to be provided.

4.2. Statutory Documents:

I) The Bidder should give self-declaration certificate for acceptance of all terms & conditions of tender documents. A duly completed certificate to this effect is to be submitted as per the Annexure-I.

II) The firm should not be in active debarred list by any Central / State Government / Public Undertaking / Institute and no criminal case registered / pending against the firm or its owner / partners anywhere in India. A duly completed certificate to this effect is to be submitted as per Annexure-III.

III) **Experience and Past Performance:**

The Bidder should submit list of clientele to whom identical or similar furniture have supplied during past five financial years **i.e. during 2018-19 to 2022-23** with their contact details along with documentary evidence such as Purchase Orders executed along with technical specifications, completion certificates from the client, etc. are to be submitted as per the **Annexure-IV.**
(On-going works will not be considered for the Technical evaluation)

At least in any one of the calendar years (2018-2022), the number of items supplied should be more than items mentioned in tender enquiry (Pl. submit the proof of supply of identical or similar furniture).

IV) The Annual Turnover should be at least **Rs. 2 Crores** and be profitable during each of the previous three financial years **i.e. during 2018-19 to 2020-21 or 2019-20 to 2021-22**. Audited financial Statements or Financial Statements showing turnover duly signed by a Chartered Accountant are to be submitted as per the **Annexure-V.**

V) **The Bidder should be a <u>Class-I / Class-II Local Supplier</u> meeting minimum 20% local content clause in line with the Public Procurement (Preference to Make in India) Order 2017 No. P-45021/2/2017-PP (BE-II) dated 04 Jun 2020 as amended from time to time. A Self-Declaration Certificate regarding "Class-I/Class-II Supplier" for the tendered items as per the Annexure-V is to be submitted.**
As per the OM of Department of Promotion for Industry and Internal Trade No. P-45021/102/2019-BE-II-Part(1) dated: 04.03.2021. The bidders can't

claim themselves as Class-I local suppliers/Class-II local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. as local value addition.

a. **'**Local Content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all custom duties) as a proportion of the total value, in percent.
b. 'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50% as defined under this order.
c. 'Class-II local supplier' means a supplier or service provider, whose goods,services or works offered for procurement, has minimum local content of 20% but less than 50%, as defined under this order.
d. 'Non-local supplier'means a supplier or service provider, whose goods,services or works offered for procurement, has local content less than 20%, as defined under this order.
e. Complaint redressal mechanism: In case any complaint received by the procuring agency or the concerned Ministry/Department against the claim of a bidder regarding local content/domestic value addition in an electronic product, the same shall be referred to STQC.
f. The Bidder shall be required to furnish the necessary documentation in support of the domestic value addition claimed in an electronic product to STQC. If no information is furnished by the Bidder, such laboratories may take further necessary action, to establish the bonafides of the claim.
g. A complaint fee of Rs. 2 lakh or 1% of the value of the domestically manufactured products being procured (subject to a maximum of Rs.5 lakh), whichever is higher, to be paid by Demand Draft to be deposited with STQC. In case, the complaint is found to be incorrect, the complaint fee shall be forfeited. In case, the complaint is upheld and found to be substantially correct, deposited fee of the complainant would be refunded without any interest.
h. False declarations will be in breach of the Code of Integrity under Rule 175 (1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

VI) The Bidder should be OEM or OEM authorized Dealers / Channel partners / Distributors of reputed brand having authorization for sales and after sales support. Valid OEM authorization letter is required to participate in this tender.

VII) **Prior Registration and / or Screening of bidders:**

Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the Bidder registered with the competent authority. The concerned Bidder (s) are required to attach the relevant valid Registration Certificate along with the bid for consideration.

"Bidder" (including the term 'tenderer', consultant or service provider in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

"Bidder from a country which shares a land border with India" for the purpose of this Order means :-

- An entity incorporated, established or registered in such a country; or
- A subsidiary of an entity incorporated, established or registered in such a country or
- An entity substantially controlled through entities incorporated, established or registered in such a country; or
- An entity whose beneficial owner is situated in such a country; or
- An Indian (or other) agent of such an entity; or
- A natural person who is a citizen of such a country; or
- A consortium of joint venture where any member of the consortium or joint venture falls under any of the above.

The detailed terms & conditions issued from time to time in this regard by Government of India will be applicable.

VIII) **Authorized Representatives:**

Bids of bidders quoting as authorised representative of a principal manufacturer would also be considered to be qualified, provided:

(i) Their principal manufacturer meets all the criteria above without exemption, and

ii) The principal manufacturer furnishes a legally enforceable tender-specific authorisation assuring full guarantee and warranty obligations as per the general and special conditions of contract;

and

iii) The Bidder himself should have been associated, as authorised representative of the Principal Manufacturer for same set of services as in present bid (supply,installation, satisfactorily commissioning, after sales

service as the case may be) for same or similar item for past three years ending on bid opening date.

IX) The should have valid below mentioned certificated

1. SEFA 8 for office and Instititutional furnishing.

4.3 TECHNICAL CRITERIA

Bidders should comply the specification of the tendered item in all respect. The detailed format is attached at Annexure-VII. The Bidder is to complete the same in all respect and submit accordingly

5. FINANCIAL BID DETAILS

5.1 Financial bid i.e. BOQ given with tender (in **Excel format**) to be downloaded first and uploaded after filling all relevant information strictly as per the format failing which the offer is liable for rejection. Kindly quote your offer on FOR IIT Tirupati (inclusive of all taxes and charges). **Vendor should quote prices in BOQ only, offers indicating rates anywhere else shall be liable for rejection.**

6. TIME SCHEDULE:

1	Date and time of Online Publication/Download of Tenders	26.06.2023	18.00 hrs
2	Clarifications start date	27.06.2023	10.00 hrs
3	Clarifications end date	03.07.2023	15.00 hrs
4	Uploading of corrigendum after the receipt of clarifications (If any)	04.07.2023	15.00 hrs
5	Bid submission start date & time	26.06.2023	11.00 hrs
6	Bid submission close date & time	17.07.2023	15.00 hrs
7	Closing date & time for submission of EMD/Tender fee	17.07.2023	15.00 hrs
8	Opening of Technical bids	18.07.2023	15.00 hrs

7. AVAILABILITY OF TENDER

The tender document can be downloaded from http://eprocure.gov.in/eprocure/app and be submitted only through the same website.

8. BID VALIDITY PERIOD

The bid will remain valid for **120 days** from the date of opening as prescribed by IIT Tirupati. A bid valid for a shorter period shall be rejected, being non-responsive.

9. BID SUBMISSION

9.1 Instruction to Bidder

I) Bidders are required to enrol on the e-Procurement module of the **Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app)** by clicking on the link "**Online Bidder Enrolment"** on the CPP Portal. **The registration is completely free of charge**.

II) Possession of a valid Class II/III DSC in the form of smart card / e-token is a prerequisite for registration and participating in the bid submission activities. DSCs can be obtained from the authorised certifying agencies recognized by CCA India (e.g. Sify/TCS/nCode/eMudhra etc).

III) Bidders are advised to register their valid email addresses and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.

IV) A bidder should register only one valid DSC. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.

V) The Bidders are required to log in to the site through the secured log-in by entering their respective user ID / password and the password of the DSC.

VI) The CPP portal also has user manuals with detailed guidelines on enrolment and participation in the online bidding process. The user manuals can be downloaded for reference.

9.2 TENDER CLARIFICATION

I) In case the bidders require any clarification regarding the tender documents, they are requested to contact our office Ph. no: 0877-2503572, Email ID: purchase@iittp.ac.in on or before due date.

II) Technical and Specifications related Clarifications contact our office No: 0877-2503602 , Email ID: eutenders@iittp.ac.in on or before due date.

III)Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

9.3 ONLINE BID SUBMISSION PROCEDURE

Cover-1: The file should be saved in a PDF version numbered sequentially and should comprise of the following items:

Packet-1:

Duly Completed Scanned PDF copy of, PAN, GST, Firm Registration certificate and Annexure-I to VIII with relevant supporting documents

Only the relevant documents as per the tender clauses are to be uploaded along with duly completed checklist as per the annexure-IX. Uploading of other than the required documents may liable for rejection of the bid.

Cover-2:

A standard BOQ format has been provided in excel format. Bidders are required to download the BOQ excel file and fill their financial offer on the same BOQ format. After filling the same, submit it online in excel format, without changing the financial template format.

Note:

If the bid is incomplete and / or non-responsive it will be rejected during technical evaluation. The Bidder may not be approached for clarifications during the technical evaluation. So, the bidders are requested to ensure that they provide all necessary details in the submitted bids.

10. BID OPENING

10.1 Technical Bids will be opened on **18.07.2023 @ 15.00 Hrs.**

10.2 Financial Bids of the eligible bidders will be opened on a later date. The date and time for the opening of Financial Bids will be announced later.

10.3 **Bids should be summarily rejected, if tender is submitted other than through online or original tender fee/Bid security declaration are not submitted within stipulated date / time.**

11. BID EVALUATION

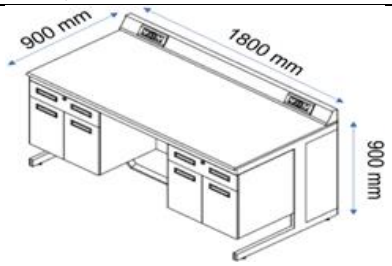
I) **Stage-I Evaluation (Pre-qualification criteria):** In this stage, the received bids will be evaluated by the committee as per the eligibility criteria, terms and conditions of the tender. Only the shortlisted bidders in this stage will be informed for sample piece submission. The shortlisted bidders will have to submit the sample pieces at IIT Tirupati Transit Campus, Yerpedu Manda, Venkatagiri Road, Tirupati District, Andhra Pradesh – 517619 within 15 days of the receipt of mail from IIT Tirupati. The samples received after **15 days** will not be considered for evaluation.

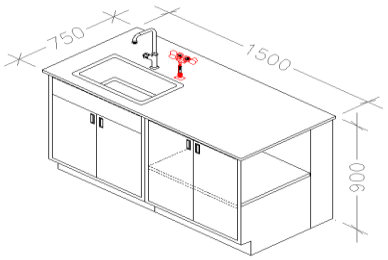
II) **Stage-II Evaluation (Sample Piece Evaluation):** In this stage, the expert committee will evaluate the received sample pieces as per the tender specifications, terms, and conditions. Bidders whose samples are accepted by the Institute will be treated as technically qualified bidders for consideration of their price bids.

III) The Commercial Bid with the lowest price will be the highest evaluated bid.

Financial bids of the successful bidders will only be opened and orders placed on L1 basis. .

IV) The shortlisted Bidder will have to submit the samples for the following:
The following are the list of furniture items to be provided as sample for stage II technical evaluation.

S.No.	Description	Measurements (All measurements are ± 20 mm)
1	Granite top side table with under bench fixed storage cabinets & power sockets	**Type A:** 1520 mm (L) x 920 mm (W) x 900 mm (H) BASE CABINET -750X549X895mm-1DW/2DR – 2 Nos
2	Granite top workbench with power sockets, Under storage cabinets & leg space	 1800 mm(L) x 900 mm (W) x 900 mm (H) BASE CABINET -600X549X895mm-1DW/1DR – 2 Nos
3	Granite top workbenches without storage cabinets	**Type – A:** 1520 mm (L) x 920 mm (W) x 900 mm (H) KNEE SPACE – 2 Nos
4	Movable under bench chemical cabinets	600 mm (L) x 530 mm (D) x 650 mm (H) MOVABLE PP CHEMICAL CABINET WITH VENT HOLE - 600X530X650mm-1DW/2DR, X= WITH CASTOR & TOP CLOSED, L=WITH LOCK , G=MOC:GI
5	Reagent shelves on the work benches	900 mm (L) x 250 mm (D) x 600 mm (H) 2 TIER REAGENT RACK WITH UPRIGHT
6	Acid/Alkali corrosive resistant storage cabinet	1970 mm (H) x 900 mm (W) x 600 (D) 90 GALLONS PP ACID CABINET 900x600x1970mm WITH BI-FOLD SHELF CLOSE DOORS WITH VENT
7	Solvent storage cabinet (flammable storage cabinet)	1970 mm (H) x 900 mm (W) x 600 mm (D)

		90 MINS SOLVENT CABINET 900x600x1970mm WITH SELF CLOSING DOOR WITH SHELF
8	Full-height storage cabinets	900 mm (W) x 600 mm (D) x 2000 mm (H) TALL UNIT SWINGING PANEL WITH VENT HOLE AND LOUVERS AT BOTTOM HAVING 5 NOS. OF HEIGHT ADJUSTABLE SHELVES AND 6 NOS. OF PP TRAYS- 900X600X2000mm, X= FRAMED GLASS DOOR – 1 No
9	Double door wall mounted storage cabinets	750 mm (L) x 400 mm (W) x 750 mm (H) WALL CABINET FRAMED GLASS SWINGING DOOR - 750X400X750mm, L=WITH LOCK
10	Gas cylinder storage cabinets	4 cylinder cabinets 90 MINS GAS CYLINDER CABINET HOLDING 4 GAS CYLINDERS- 1198x615x2050mm WITH VENT, GAS LEAK SENSOR, WITH ALL ACCESSORIES
11	Granite top workbench with sink and peg board	 **Type – A:** Table dimensions: 1500 mm(L) x 920 mm(D) x 900 mm(H). Sink dimensions: 560 mm(L) x 360 mm(D) x 300 mm (H) BASE SINK CABINET-750X549X895mm-2DR – 1 No BASE SINK CABINET-750X549X895mm-2DR – 1 No BASE CABINET-750X549X895mm-2DR – 1 No
12	Laboratory stools	16 inch dia revolving chair with adjustable height.
13	Anti-vibration tables	1520 mm (L) x 920 mm (W) x 920 mm (H) WITH 80mm THICK GRANITE WORKTOP, X=WITH ANTI-VIBRATION PADS AT BOTTOM
14	Single sink with peg board	760 mm (W) x 920 mm (D) x 920

		mm (H)

V) The L1 bidder should visit the site and take actual measurements of the rooms and have a combined meeting with end user for the better understanding.

VI) The L1 bidder should submit the room wise furniture layout as per the site conditions(details will be given after award of work)

VII) After the site visit should submit the shop drawing for the furniture layout room wise with in 7 days and it should be approved by IIT Tirupati for the further process of manufacturing.

VIII) After receiving the Shop drawing approval from IIT Tirupati L1 bidder should produce the sample within 15 days at their factory for inspection and clearance from IITT before manufacturing of bulk quantity

IX) From the date for factory vist sample confirmation you delivery time will start.

11.1 Purchase Preference

I) Micro and Small Enterprises (MSEs):

Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) **for goods produced and services rendered**, may be provided following purchase preference:

Item wise Quantity	Price Quoted by MSE	How the tender shall be finalized
Cannot be split	L1	Full Order on MSE
Cannot be split	Not L1 but within L1 + 15%	Full Order on MSE subject to matching L1 Price

II) Preference to Make in India

a) In procurement goods or works which are covered under by para 3(b) of the extant Public Procurement (Preference to Make in India) Order 2017 dated 04 June 2020 and which are **divisible** in nature, the "Class-I Local Supplier" shall get purchase preference over "Class-II Local Supplier" as well as "Non-Local Supplier" as per following procedure:

i) **Among all qualified bids, the lowest bid will be termed as L1. If L1 is** "Class-I Local Supplier", the contract for full quantity will be awarded to L1.

ii) **If L1 bid is not a** "Class-I Local Supplier", 50% of the order quantity shall be awarded to L1. Thereafter, the lowest Bidder among the "Class-I Local Supplier" will be invited to match L1 price for the remaining 50% quantity subject to the Class-I Local Supplier's quoted price falling within the margin

of L1 + 20%, and contract for that quantity shall be awarded to such “Class-I Local Supplier” subject to matching the L1 price. In case such lowest eligible “Class-I Local Supplier” fails to match L1 price or accepts less than the offered quantity, the next higher “Class-I Local Supplier” within the margin of L1 + 20% shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such quantity may be ordered on the L1 Bidder.

b) In procurement goods or works which are covered under by para 3(b) of the extant Public Procurement (Preference to Make in India) Order 2017 dated 04 June 2020 and which are **not divisible** in nature, and in procurement of services where the bid is evaluated on price alone, the “Class-I Local Supplier” shall get purchase preference over “Class-II Local Supplier” as well as “Non-Local Supplier” as per following procedure:

i) **Among all qualified bids, the lowest bid will be termed as L1. If L1 is** “Class-I Local Supplier”, the contract will be awarded to L1.

ii) **If L1 is not a** “Class-I Local Supplier”, the lowest Bidder among the Class-I Local Supplier, will be invited to match the L1 price subject to Class-I Local Supplier’s quoted price falling within the margin of L1 + 20%, the contract shall be awarded to such Class-I Supplier subject to matching the L1 price.

iii) **In case such lowest eligible Class-I Local Supplier fails to match the L1 price, the** “Class-I Local Supplier” with the next higher bid within the margin of L1 + 20% shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the of Class-I Local Supplier within the margin of L1 + 20%, the contract may be awarded to the L1 Bidder.

iv) **Class-II Local Supplier will not get purchase preference.**

12. PAYMENT TERMS

No advance payment will be made in any case. Bills in Duplicate should be sent and the payment shall be released generally within 30 days, only after it is ensured that the items / quality of the items supplied are to the entire satisfaction of IIT Tirupati and completed the entire work within the stipulated delivery schedule. If any item is found defective, or not of the desired quality etc., the same should be replaced by the firm(s) immediately for which no extra payment shall be made.

13. WARRANTY OF QUALITY AND QUANTITY

13.1 The awardee shall give minimum **3-year onsite warranty for all items** on successful completion of supply, and acceptance of supplied items.

13.2 The awardee shall give warranty that all items are as per specification(s), conforming to the specified design and there are no defects in the process of manufacturing, packaging, transportation and delivery.

13.3 Upon receipt of notice from IIT Tirupati for defective material, the firm shall **within 15 days** of receipt of the notice, replace the defective material, free of cost at the destination. The firm shall take over the defective material at the time of their replacement. No claim whatsoever shall lie on IIT Tirupati for the replaced goods thereafter. Suppose the firm fails to replace the defective goods within a reasonable period. In that case, IIT Tirupati may take such remedial actions as necessary, at the company's risk and expense.

14. LIQUIDATED DAMAGES

In case of delay in Supply by the stipulated date, IIT Tirupati reserves the right of imposing penalty @0.5% per week on the value of the undelivered items subject to maximum 10% of the cost of undelivered items.

15. DELIVERY SCHEDULE

15.1 The successful Bidder should execute the order successfully i.e. Supply, Installation of the ordered item within 12 weeks (84 days) at IIT Tirupati Permanent campus (Department block-1 , Venkatagiri Road, Yerpedu Mandal, Tirupati District from the date of sample approved at the factory. In case of any damage/Broken/Expired items found, the item(s) should be replaced **within 15 days** at IIT Tirupati. The Bidder has to make own arrangement for unloading and positioning of items at the desired location of IIT.

15.2 The bidders is responable for the delivery, installation at desired locations floor wise.

16. PERFORMANCE SECURITY DETAILS

16.1 The successful tenderer will have to deposit the performance security valid for **39 Months** in the form of DD / TDR / FDR / Bank Guarantee **@10% of the total order value** at the earliest from the date of issue of the award letter. IIT Tirupati will pay no interest on the deposit.

16.2 Performance Security will be refunded to the supplier, after it duly performs and completes the contract/warranty period in all respects.

16.3 Performance Security will be forfeited if the firm fails to perform/abide by any of the terms or conditions of the contract.

16.4 In case, the firm fails to execute the order successfully, within specified delivery period, the same goods/items will be procured from open market and the difference of cost, if any, will be recovered from Performance Security or from pending bill(s) of the defaulting firm or from both in case the recoverable amount exceeds the amount of Performance Security.

17. INTEGRITY PACT:

a. The integrity pact (IP) envisages an agreement between the prospective bidders/ vendors with the buyer committing the persons/ officials of both the parties with the aim not to exercise any corrupt influence on any aspect of the contract. **Only those bidders/ vender who are willing to enter into such an integrity pact with the purchase would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification. The bidder should give self-declaration certificate for acceptance** and compliance with the Integrity Agreement as per **Annexure XI**.

b. Any violation of the Integrity Pact would entail disqualification of the bidders and exclusion from future business dealings, as per the existing provisions of GFR, 2017, PC Act, 1988, and other Financial Rules/Guidelines, etc. as may be applicable to the organization concerned

c. The integrity pact would be effective from the date of invitation of bids till the complete execution of the contract.

d. The model format of Integrity Pact(IP) is at **Annexure-XII**

18. TERMS AND CONDITIONS

18.1 Termination for Insolvency

I) The IIT Tirupati may at any time terminate the Contract by giving a written notice to the awarding firm, without compensation to the firm, if the firm becomes bankrupt or otherwise insolvent as declared by the competent Court, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the department.

II) IIT Tirupati and/or the firm are entitled to withdraw/cancel the rate contract by serving one-month notice on each other. However, once a purchase order is placed on the supplier for supply of a definite quantity in terms of the rate contract during the validity of the rate contract, that purchase order becomes a valid and binding contract.

III) The courts of Tirupati alone will have the jurisdiction to try any matter, dispute or reference between the parties arising out of this purchase. It is specifically agreed that no court outside and other than Tirupati Court shall have jurisdiction in the matter

18.2 Force Majeure

I) Should any force majeure circumstances arise, each of the contracting parties be excused for the non-fulfilment or for the delayed fulfilment of any of its contractual obligations, if the affected party within 15 days of its occurrence informs in a written form the other party.

II) Force Majeure shall mean fire, flood, natural disaster or other acts such as war, turmoil, sabotage, explosions, epidemics, quarantine restriction, strikes, and lockouts i.e. beyond the control of either party.

18.3 Arbitration

I) All disputes of any kind arising out in connection with the executing the order shall be referred by either party (IIT TIRUPATI or the Bidder) after issuance of 30 days' notice in writing to the other party clearly mentioning the nature of dispute to a single arbitrator acceptable to both the parties. The venue for arbitration shall be IIT TIRUPATI India. The jurisdiction of the courts shall be Tirupati, Andhra Pradesh, India.

18.4 Other Conditions

I) The Bidder has to upload the relevant & readable files only as indicated in the tender documents. In case of any irrelevant or non-readable files, the bid may be rejected.

II) IIT Tirupati will not be liable for any obligation or supplies made unless the Official Purchase Order has been placed by the Purchase Department.

III) IIT Tirupati reserves the right to accept or reject any or all the tenders in part or in full or may cancel the tender, without assigning any reason thereof.

IV) IIT Tirupati reserves the right to relax / amend / withdraw any of the terms and conditions contained in the Tender Document without assigning any reason thereof. Any inquiry after submission of the quotation will not be entertained.

V) IIT Tirupati reserves the right to modify/change/delete/add any further terms and conditions prior to issue of purchase order.

VI) **Repeat Order:** IIT Tirupati reserves the right to place repeat order up to 100% of the quantities within a period of 12 months from the date of successful completion of purchase order at the same rates and terms subject to the condition that there is no downward trend in prices.

To take care of any change in the requirement during the currency of the contract, a plus/minus option clause for 25 per cent is incorporated in the tender document, reserving purchaser's right to increase or decrease the quantity of the required goods up to that limit without any change in the terms and conditions and prices quoted by the tenderers.

VII) In case the bidders/successful bidder(s) are found in breach of any condition(s) at any stage of the tender, Performance Security shall be forfeited.

VIII) False declaration/documents will be in breach of the Code of Integrity under Rule 175(1) (h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

IX) Conditional tenders will not be considered in any case.

X) In case of doubt in material, the expenditure on testing of equipment will be borne by the tenderer.

XI) Institute reserve the right to increase/decrease the order quantity at any period of times during the validity of the contract.

XII) IIT Tirupati may issue amendment/corrigendum to tender documents before due date of submission of bid. Any amendment/corrigendum to the tender document if any, issued by IIT Tirupati will be posted on CPP Portal. For the bidders, submitting bids on downloaded tender document, it is 'bidders' responsibility to check for any amendment/corrigendum on the website of IIT Tirupati or check for the same CPP Portal before submitting their duly completed bids.

ANNEXURE – I

UNDERTAKING

To
The Registrar,
Indian Institute of Technology
Yerpedu – Venkatagiri Road, Yerpedu Post,
Tirupati District, Andhra Pradesh.
Pincode - 517619.

Tender No. IITT/EU/2023-24/07 dated: 26.06.2023

Name of the Tender/Supply: Notice Inviting Tender for Supply, installation, testing and Commissioning of Chemistry laboratory furniture.

Sir,

I /we hereby submit our bid for Supply, installation, testing and Commissioning of Chemistry laboratory furniture.

I/ We enclosed here with the following in favor of Indian Institute of Technology Tirupati towards Tender Fee.

Particular	Amount	Payment Reference Details	Payment Date
Tender Fee (Including Tax)	**2500/-**		

1. I / We hereby reconfirm and declare that I / We have carefully read, understood & complying the above referred tender document including instructions, terms & conditions, scope of work, schedule of quantities and all the contents stated therein. I / We also confirm that the rates quoted by me / us are inclusive of all taxes, duties etc., applicable as on date.

2. I /we have gone through all terms and conditions of the tender document before submitting the same.

Date:
Place:

Seal

Authorized Signatory

Name:

Designation:
Contact No :

ANNEXURE – II

On Company Letter Head

Bid Security Declaration

To
The Registrar,
Indian Institute of Technology
Yerpedu – Venkatagiri Road, Yerpedu Post,
Tirupati District, Andhra Pradesh.
Pincode - 517619.

Tender No. IITT/EU/2023-24/07 dated: 26.06.2023

Name of the Tender/Supply : Notice Inviting Tender for Supply, installation, testing and Commissioning of Chemistry laboratory furniture.

Sir,

We, the undersigned declare that

1. We understood that, according to the tender conditions, bids must be supported by a Bid Security Declaration.

2. We accept that we will automatically be suspended from being eligible for bidding in any contract with the Institute for the period of **3 years** starting from the bid closing date, if we are in breach of our obligation(s) under the bid conditions, because we;

   (a) have withdrawn our bid during the period of bid validity specified in the letter of bid; or

   (b) having been notified of the acceptance of our bid by the Institute during the period of bid validity, (i) fail or refuse to execute the contract, if required, or (ii) fail or refuse to furnish the performance security, in accordance with the tender conditions.

Date:
Place:

Seal

Authorized Signatory

Name:

Designation:
Contact No :

ANNEXURE – III

CERTIFICATE
(To be provided on letter head of the firm)

I hereby certify that the above firm not in active debarred list by any Central/State Government/Public Undertaking/Institute and no criminal case registered / pending against the firm or its owner / partners anywhere in India.

I also certify that the above information is true and correct in every respect and in any case at a later date it is found that any details provided above are incorrect, any contract given to the above firm may be summarily terminated and the firm may be blacklisted.

Date:

Place:

Seal

Authorized Signatory

Name:

Designation:
Contact No.:

ANNEXURE – IV

a) Experience: (As per tender Clause No.4.2 (III)

Year	Name of the Item with Specification (Technical specification brochure to be attached)	Purchase Order No. & Date (Copy of the Orders to be attached)	Date of successfully completion of SITC of ordered Item (copy of report from client to be attached)	Contact Details of Client
2018-19				
2019-20				
2020-21				
2021-22				
2022-23				

b) Past Performance: (As per tender Clause No.4.2 (III)

Sl No.	Financial Year (April 2018 – March 2023)	Quantity of similar furniture in Nos	Purchase Order No with Page No	Work Completion Certificate details with Page No	Contact Address of the Client	Remarks
1.						
2.						
3.						

Date :

Place :

Contact No.:

Seal

Authorized Signatory

Name:
Designation

ANNEXURE – V

Annual Turnover Details:

Evaluation Criteria				**Remark**	**Specific page no. where the proof of documents are enclosed**
Bidder's Annual Turnover for last five financial years	**Financial Year**	**Turnover in Rs.**		-	
	2021-22			**Supporting Documents are to be attached along with the Annexure-V**	
	2020-21				
	2019-20				
	2018-19				
	2017-18				

Date:

Place:

Seal

Authorized Signatory:

Name:

Designation:

Contact No.:

ANNEXURE – VI

Format for Self-Declaration under preference to make in India order

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II date. 15.06.2017 & P-45021/2/2017-PP (BE-II) dated: 04 June 2020. We hereby certify that we M/s. _____ _____ (supplier name) are **CLASS-I/Class-II (Please specify clearly)** supplier meeting the requirement of local content more than 20% as defined in above orders for the material against Enquiry No. IITT/EU/2023-24/07 dated: 26.06.2023

Details of location at which local value addition will be made as follows: (Complete address to be mentioned)

Percentage of Local Content: _____

(As per the OM of Department of Promotion for Industry and Internal Trade No. P-45021/102/2019-BE-II-Part(1) dated: 04.03.2021. The bidders can't claim themselves as Class-I local suppliers/Class-II local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. as local value addition)

We also understand, false declarations will be in breach of the Code of Integrity under rule 175 (1) (i) (h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

Seal and signature of Supplier

Date :

Place :

ANNEXURE – VII

Technical Compliance statement

Item Description	Qty (In Nos.)	Complied (Yes/No)	Remarks, if any	Offered Make & Model	% of Local Content as per Tender Clause No.4.2(V)	Country of Origin
Item no.1 : Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – A: (L 1520 mm ± 20 mm X W 920 mm ± 20 mm X H 900 mm ± 20 mm) as per the specifications of the tender clause 2.1	59 Nos					
Item no.2 : Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – B: (L 1520 mm ± 20 mm X W 760 mm ± 20 mm X H 900 mm ± 20 mm) as per the specifications of the tender clause 2.2	27 Nos					
Item no.3 : Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – C: (L 1200 mm ± 20 mm X W 920 mm ± 20 mm X H 900 mm ± 20 mm) as per the specifications of the tender clause 2.3	14 Nos					
Item no.4 : Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – D: (L 1500 mm ± 20 mm X W 1050 mm ± 20 mm X H 900 mm ± 20 mm) as per the specifications of the tender clause 2.4	03 Nos					
Item no.5 : Granite top wall/side table with under bench fixed storage cabinets and power sockets TYPE – E: (L 1100 mm ± 20 mm X W 1050 mm ± 20 mm X H 900 mm ± 20 mm) as per the specifications of the tender clause 2.5	02 Nos					
Item no.6 : Granite top work bench with power sockets, Under storage cabinets and Leg space TYPE A : (L 1800 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm) as per the specifications of the tender clause 2.6	87 Nos					
Item no.7 : Granite top work bench with power sockets, Under storage cabinets and Leg space TYPE – B: (L 1500 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm) as per the specifications of the tender clause 2.7	33 Nos					

Item no.8 : Granite top work bench without storage cabinet TYPE – A: (L 1500 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm)as per the specifications of the tender clause 2.8	04 Nos					
Item no.9 Granite top work bench without storage cabinet TYPE – B: (L 1500 mm ± 20 mm X W 1220 mm ± 20 mm X H 650 mm ± 20 mm) as per the specifications of the tender clause 2.9	02 Nos					
Item no.10 Granite top work bench without storage cabinet TYPE – C: (L 1500 mm ± 20 mm X W 750 mm ± 20 mm X H 750 mm ± 20 mm) as per the specifications of the tender clause 2.10	25 Nos					
Item no.11 : Movable under bench cabinet (L 600 mm ± 20 mm X W 530 mm ± 20 mm X H 650 mm ± 20 mm) as per the specifications of the tender clause 2.11	05 Nos					
Item no.12 : Reagent shelves on the work bench TYPE – A : (L 1200 mm ± 20 mm X W 250 mm ± 20 mm X H 600 mm ± 20 mm) as per the specifications of the tender clause 2.12	08 Nos					
Item no.13 : Reagent shelves on the work bench TYPE – B : (L 1500 mm ± 20 mm X W 250 mm ± 20 mm X H 600 mm ± 20 mm) as per the specifications of the tender clause 2.13	18 Nos					
Item no.14 : Reagent shelves on the work bench TYPE – C: (L 900 mm ± 20 mm X W 250 mm ± 20 mm X H 600 mm ± 20 mm) as per the specifications of the tender clause 2.14	50 Nos					
Item no.15 : Acid/Alkali storage cabinet (L 900 mm ± 20 mm X W 600 mm ± 20 mm X H 1970 mm ± 20 mm) as per the specifications of the tender clause 2.15	02 Nos					
Item no.16: Solvent Storage Cabinet - Flammable storage cabinet (L 900 mm ± 20 mm X W 600 mm ± 20 mm X H 1970 mm ± 20 mm)as per the specifications of the tender clause 2.16	08 Nos					
Item no.17 : Full Height Storage Cabinet (L 600 mm ± 20 mm X W 900 mm ± 20 mm X H 2000 mm ± 20 mm) as per the specifications of the tender clause 2.17	77 Nos					

Item no.18 : Double Door Wall Mounted Storage Cabinets (L 750 mm ± 10 mm X W 400 mm ± 10 mm X H 750 mm ± 10 mm)as per the specifications of the tender clause 2.18	278 Nos					
Item no.19 : Gas Cylinder Cabinet (L 1200-1400 mm ± 10 mm X W 500 mm ± 10 mm X H 2000 mm ± 10 mm) as per the specifications of the tender clause 2.19	31 Nos					
Item no.20 : Granite Top workbench with sink and peg board TYPE – A: (Table Dimenstion: L 1500 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 10 mm & Sink Dimenstion: L 560 mm ± 20 mm X W 360 mm ± 20 mm X H 300 mm ± 10 mm) as per the specifications of the tender clause 2.20	08 Nos					
Item no. 21 : Granite Top workbench with sink and peg board TYPE – B: (Table Dimenstion: L 1500 mm ± 20 mm X W 760 mm ± 20 mm X H 900 mm ± 10 mm & Sink Dimenstion: L 600 mm ± 20 mm X W 360 mm ± 20 mm X H 300 mm ± 10 mm) as per the specifications of the tender clause 2.21	12 Nos					
Item no. 22 : Granite Top workbench with sink and peg board TYPE – C: (Table Dimenstion: L 1200 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 10 mm & Sink Dimenstion: L 560 mm ± 20 mm X W 360 mm ± 20 mm X H 300 mm ± 10 mm)as per the specifications of the tender clause 2.22	02 Nos					
Item no. 23 : Granite Top workbench with sink and peg board TYPE – D: (Table Dimenstion: L 750 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 10 mm & Sink Dimenstion: L 560 mm ± 20 mm X W 360 mm ± 20 mm X H 300 mm ± 10 mm) as per the specifications of the tender clause 2.23	01 Nos					
Item no. 24 : Double Sink with granite top and peg board (L 1500 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm)as per the specifications of the tender clause 2.24	01 Nos					
Item no. 25 : Single Sink with peg board (L 900 mm ± 20 mm X W 760 mm ± 20 mm X H 900 mm ± 20 mm & Sink Dimension: 560 mm X 355 mm X 245 mm)as per the specifications of the tender clause 2.25	41 Nos					

Item no. 26 : Laboratory stools as per the specifications of the tender clause 2.26	182 Nos					
Item no. 27 : Anti-Vibration Tables Type – A (L 1200 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm) as per the specifications of the tender clause 2.27	18 Nos					
Item no. 28 : Anti-Vibration Tables Type – B (L 1500 mm ± 20 mm X W 900 mm ± 20 mm X H 900 mm ± 20 mm) as per the specifications of the tender clause 2.28	04 Nos					
Item no. 29 : Trolly for Gas cylinders(50L) – One Cylinder Trolly Type – A as per the specifications of the tender clause 2.29	06 Nos					
Item no. 30 : Trolly for Gas cylinders (50L) - Two Cylinder Trolly Type – B as per the specifications of the tender clause 2.30	02 Nos					
Item no. 31 : Safety shower with Eye wash as per the specifications of the tender clause 2.31	15 Nos					
Item no. 32 : Shoe Rack (L 1200 mm ± 20 mm X W 450 mm ± 20 mm X H 900 mm ± 20 mm) as per the specifications of the tender clause 2.32	16 Nos					
Item no. 33 : Student storage cabinet as per the specifications of the tender clause 2.33	14 Nos					
Onsite warranty : 03 years onsite warranty for all items.						
Spares and service support availability: Minimum 05 years should be provided.						

ANNEXURE –VIII

COMPANY DETAILS

Name of the Bidder		
Date of Incorporation /		
PAN Number		
GST Registration Number		
Bidder's Bidding Capacity for the tendered items (As a Manufacturer/ Trader/ dealer / channel partner / system integrator, etc.)		
Bank Details	**Account Number**	
	IFS Code	
	Bank Name	
	Branch Name	
Registered Office Address		
Authorized Signatory Details **(Company/Firm Authorization by the competent authority, to be attached)**	**Name**	
	Designation	
	Email	
	Phone	
Details of Contact other than Authorized Signatory	**Name**	
	Designation	
	Email	
	Phone	

Date: **Signature and Seal of the Tenderer:**

Place: **Name in Block Letter:**

Designation:

Contact no.

ANNEXURE-IX

CHECKLIST FOR BIDDERS TO BE SUBMITTED IN DULY FILLED AND SIGNED

Tender Clause No.	Name of the Document	Document Particulars	Submitted (Yes/No)	Page No. of the attached Document
3.1	Tender Fee			
3.4	Bid security Declaration (Annexure-II)			
3.3	Valid Tender Fee / EMD Exemption Certificate			
4.1.	PAN Card			
	Incorporation/Registration certificate of company			
	GST Registration copy			
4.2.(I)	Tender acceptance letter (Annexure I)			
4.2.(II)	Non-Blacklisting undertaking (Annexure III)			
4.2.(III)	The Bidder should submit list of clientele to whom identical or similar furniture have supplied during past five financial years i.e. during 2018-19 to 2022-2 with their contact details along with documentary evidence such as Purchase Orders executed along with technical specifications, completion certificates from the client, etc. are to be submitted as per the Annexure-IV. (On-going works will not be considered for the Technical evaluation) At least in any one of the calendar years (2018-2022), the number of items supplied should be more than items mentioned in tender enquiry (Pl. submit the proof of supply of identical or similar furniture).			
4.2.(IV)	The Annual Turnover should be at least **Rs. 2 Crores** and be profitable during each of the previous three financial years **i.e. during 2018-19 to 2020-21 or 2019-20 to 2021-22**. Audited financial Statements or Financial Statements showing turnover duly signed by a Chartered Accountant are to be submitted as per the **Annexure-V.**			
4.2.(V)	The Bidder should be a Class-I/Class-II Local Supplier meeting minimum 20% local content clause in line with the Public Procurement (Preference to Make in India) Order 2017 No. P-45021/2/2017-PP (BE-II) dated 04 Jun 2020. A Self-Declaration Certificate regarding "Class-I &			

	Class-II Supplier" for the tendered items as per the Annexure-VI is to be submitted.			
4.2.(VI)	The Bidder should be OEM or OEM authorized Dealers / Channel partners / Distributors of reputed brand having authorization for sales and after sales support. Valid OEM authorization letter is required to participate in this tender.			
4.2.(VII)	Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the Bidder registered with the competent authority. The concerned Bidder (s) are required to attach the relevant valid Registration Certificate along with the bid for consideration.			
4.3	Technical Compliance Statement : Annexure-VII.			
4.2 (IX)	The Bidder should have submit below mentioned certificates 1. SEFA 8 for office and Instititutional furnishing.			
11.1 (I)	Purchase Preference: (if applicable) Micro and Small Enterprises (MSEs):			
11.2 (II)	Purchase Preference: Make in India			
12	Payment Term: Within 30 days after SITC.			
13.	**Onsite Warranty: 03 Years onsite warranty for all the items**			
15	**Delivery: within 12 weeks (84 days) from the date of sample approved by the committee at the factory.**			
8	Bid validity: 120 days from the date of opening of the tender.			
	Company details : Annexure-VIII			

Note: **Submission of tender without the documents mentioned above will lead to rejection/disqualification of the tender.**

Signature of the Bidder with stamp

ANNEXURE-X

Format for submitting the queries through email to IIT Tirupati

QUERIES RELATED TO THE TENDER DOCUMENT MAY BE FORWARDED TO eutenders@iittp.ac.in and copy to purchase@iittp.ac.in AS PER THE BELOW FORMAT OF ANNEXURE-X

Tender No. IITT/EU/2023-24/07 dated: 26.06.2023

Name of the Tender/Supply: Notice Inviting Tender for Supply, installation, testing and Commissioning of Chemistry laboratory furniture.

S No	Tender Clause No	Bidder(s) queries	IIT Tirupati response

Signature and Seal of the Tenderer:

Name in Block Letter:
Designation:
Full Address:
Contact no.:
Date:

ANNEXURE- XI

INTEGRITY PACT

To,

The Registrar,
Indian Institute of Technology,
Tirupati.

Sub: Submission of Tender for the _____ at Indian Institute of Technology, Tirupati.

Sir/ Madam,

I/We acknowledge that the Indian Institute of Technology, Tirupati is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by Indian Institute of Technology, Tirupati. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, Indian Institute of Technology, Tirupati shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid is accordance with terms and conditions of the tender/ bid.

Yours faithfully,

(Duly authorized signatory of the Bidder)

ANNEXURE- XII

INTEGRITY PACT

This **INTEGRITY PACT** is made and executed at..... on this day of..... , 2023

BETWEEN

The Registrar, Indian Institute of Technology Tirupati, an autonomous body of the Department of Higher Education, Ministry of Education, Govt, of India having its office located at Yerpedu – Venkatagiri Road, Yerpedu Post, Tirupati District, Andhra Pradesh - 517619 (hereinafter referred to as **"The Principal"** which terms or expression shall, unless excluded by or repugnant to the subject or context, mean and include its successor-in-office, administrators or permitted assignees) of the **First Part;**

And

M/s..... a company incorporated under the Companies Act,..... through its representative/authorized signatory (insert name and designation of the officer) vide resolution dated ..... passed by the Board of Directors, having its office at .....(hereinafter referred to as "The Bidder/Contractor" which term or expression shall, unless excluded by or repugnant to the subject or context, mean and include its successor-in-office, administrators or permitted assignees) of the **Second Part**.

Preamble

The Principal intends to award, underlaid down organizational procedures, contract/s for _____ The Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness / transparency in its relations with its Bidders) and / or Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitors (IEMs) who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal

(1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

a. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

b. The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

c. The Principal will exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there is a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition, can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/ Contractor(s)

(1) The Bidder(s)/ Contractor(s) commit themselves to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commit themselves to observe the following principles during participation in the tender process and during the contract execution.

a. The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

b. The Bidders(s)/ Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

c. The Bidder(s)/ Contractor(s) will not commit any offense under the relevant IPC/PC Act; further the Bidders(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d. The Bidder(s)/ Contractors(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the Bidder(s)/Contractors(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only

e. The Bidder(s)/ Contractor(s) will, when presenting their bid, disclose any and all payments made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

f. Bidder(s) /Contractor(s) who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.

(2) The Bidders)/ Contractors) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put their reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the procedure mentioned in the "Guidelines on Banning of business dealings.

Section 4 - Compensation for Damages

(1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 - Previous transgression

(1) The Bidder declares that no previous transgressions occurred in the last three years with any other Company in any country conforming to the anti-corruption approach or with any Public Sector Enterprise in India that could justify his exclusion from the tender process.

(2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in “Guidelines on Banning of business dealings”.

Section 6 - Equal treatment of all Bidders / Contractors / Subcontractors

(1) In the case of Sub-contracting, the Principal Contractor shall take the responsibility for the adoption of the Integrity Pact by the Sub-contractor.

(2) The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.

(3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate this provisions.

Section 7 - Criminal charges against violating Bidder(s) / Contractors) / Subcontractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8 - Independent External Monitor

(1) The Principal appoints a competent and credible Independent External Monitor for this Pact after approval by Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

(2) The Monitor is not subject to instructions by the representatives of the parties and performs his/her functions neutrally and independently. The Monitor would have access to all Contract documents, whenever required. It will be obligatory for him/her to treat the information and documents of the Bidders/Contractors as confidential. He/she reports to Secretary, MoE.

(3) The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his/her request and demonstration of a valid interest,

unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.

(4) The Monitor is under contractual obligation to treat the information and documents of the Bidders)/ Contractor(s)/ Sub-contractor(s) with confidentiality. The Monitor has also signed declarations on 'Non-Disclosure of Confidential Information and of 'Absence of Conflict of Interest'. In case of any conflict of interest arising at a later date, the IEM shall inform Secretary, D/o Higher Education.

(5) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

(6) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he/she will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

(7) The Monitor will submit a written report to the Secretary, D/o Higher Education within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.

(8) If the Monitor has reported to the Secretary, D/o Higher Education, a substantiated suspicion of an offence under relevant I PC/ PC Act, and the Secretary, MoE has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.

(9) The word **'Monitor'** would include both singular and plural.

Section 9 - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealing.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by Secretary, D/o Higher Education.

Section 10 - Other provisions

(1) This agreement is subject to Indian Law. The place of performance and jurisdiction is the Office of the Principal, i.e. New Delhi.

(2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

(3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

(4) Should one or several provisions of this Pact turn out to be invalid, the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement with their original intentions.

(5) Issues like Warranty / Guarantee etc. shall be outside the purview of IEMs.

(6) In the event of any contradiction between the Integrity Pact and its Annexure, the Clause in the Integrity Pact will prevail.

(7) The actions stipulated in this Integrity Pact are without prejudice to any other legal action(s) that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

IN WITNESS WHEREOF, the parties hereunto set their hands and seals and executed this INTEGRITY PACT as of the day/month/year first above written:

For and on behalf of

THE REGISTRAR,
Indian Institute Technology Tirupati (First Party)
SIGNED, SEALED, AND DELIVERED by
Name:.....
Designation:.....
Address:.....
Authorized Signatory

For and on behalf of
M/s.....(Second Party)
SIGNED, SEALED AND DELIVERED by

Name_____
Designation:.....
Address:.....
Representative/authorized signatory
Vide resolution dated..... passed by the Board of Directors
In the presence of Witness:

1.

2.