

College of Agriculture, Vellayani, Thiruvananthapuram

IBC/5/2018/939

22.2.2018

From

Course Director
B.Sc.-M.Sc. (Integrated) Biotechnology Course

To

Dean
College of Agriculture, Vellayani

Sir,

Sub: B.Sc.- M.Sc. (Integrated) Biotechnology course –Installation of Modular Lab facility-
Corrigendum in the Tender- reg.

Ref: No.GL/A1/11072/2017 dated 16.2.2018 of Dean

As per the ref. cited, a tender notice was given in the University Website inviting tenders for the supply and installation of modular lab facility at Integrated Biotechnology Block. A pre bid meeting was held on 21.2.2018. Based on the queries raised by the bidders, a few modifications have been made in the specifications given in the tender notice. The corrigendum is attached herewith. It is requested that necessary action may be taken to publish it in the University website (web@kau.in) at the earliest.

Yours faithfully,

Corrigendum in the Tender Notice No. No.GL/A1/11072/2017 Dated 16/02/2018 for the Installation of Modular Lab Facility at Integrated Biotechnology Block, College of Agriculture, Vellayani, Thiruvananthapuram, Kerala, India 695522

No.

Modular Lab Facility in Lab1

Sl. No.	Technical Specification	Modification
2	<p>C Frame system-Worktops should be supported by heavy duty steel frame work. The frame shall be of rectangular box with a wall thickness of 12 gauge, de greased and powder coated for smooth finish and protection. The dimension details of frame work as follows.</p> <p>Vertical member of minimum 60x40mm. Horizontal top member 50x40mm. Horizontal bottom member 80x40mm.</p>	<p>C Frame system-Worktops should be supported by heavy duty steel frame work. The frame shall be of rectangular box, de greased and powder coated for smooth finish and protection. The dimension of frame work</p> <p>Vertical member of minimum 60x40mm.</p>
3	<p>Worktop</p> <p>Worktop should be made of Jet Black granite of minimum 18(±1) mm thickness. The exposed edges should be round molded. All worktops shall be with 80mm backsplash on walls of same thickness.</p>	<p>Worktop should be made of Jet Black granite of minimum 18 mm thickness. The exposed edges should be round molded. All worktops shall be with 80mm backsplash on walls of same thickness.</p>
4.	<p>Cabinet Under work bench</p> <p>Should be fabricated of 18 gauge CRCA sheet. Base should be welded together with neat, professional MIG weld fillets. For maximum strength, fillets should be left ungrounded. Fixed Shelves shall be constructed of 18 gauge steel, with channels formed on four sides. Cabinet body & shelves are pre-treated with an iron phosphate multi-stage process that includes a final sealer and de ionized water rinse. All exposed surfaces are electro statically coated with a thermosetting laboratory grade powder coating</p> <p>Two cabinets on each side of the work bench. On either side one with 4 drawers (at least 50cmX50cmX15cm each) and the other with one drawer and one cabinet with adjustable shelves (at least 50cmx50cmx50cm)</p>	<p>Cabinet Under work bench</p> <p>Should be fabricated of 18 gauge CRCA sheet. Base should be welded together with neat, professional MIG weld fillets. Fixed Shelves shall be constructed of 18 gauge steel, with channels formed on four sides. Cabinet body & shelves are pre-treated with an iron phosphate multi-stage process that includes a final sealer and de ionized water rinse. All exposed surfaces coated with a thermosetting laboratory grade powder coating</p> <p>Two cabinets on each side of the work bench. On either side one with 4 drawers (at least 50cmX50cmX15cm each) and the other with one drawer and one cabinet with adjustable shelves (at least 50cmx50cmx50cm)</p>

7.	<p>Hinges: Nickel coated heavy duty, rust free, self-closing, and allowing opening up to 165 degree and should be adjustable in all three directions for perfect finish and corrections. Drawer slides should be made of metal, epoxy coated and with nylon wheels to allow smooth and silent sliding.</p>	<p>Hinges: Nickel/S.S coated heavy duty, rust free, self-closing, and allowing opening up to 165 degree and should be adjustable in all three directions for perfect finish and corrections. Drawer slides should be made of metal, epoxy coated and with nylon wheels to allow smooth and silent sliding.</p>
8.	<p>Electrical sockets 4 Nos on either side. Standard Electrical Fittings/wires should be provided with flame retardant, UV stabilized, unbreakable polycarbonate casing. Connector should be of phosphor bronze to provide high conductivity, flexibility and contact pressure. Switches shall be of Piano type. Standard supply 5/15 Amp-220 Volt double electrical sockets should fully conform to IS -1293 -1988</p>	<p>Electrical sockets 4 Nos on either side. Standard Electrical Fittings/wires should be provided with flame retardant, UV stabilized, unbreakable polycarbonate casing. Connector should be of phosphor bronze to provide high conductivity, flexibility and contact pressure. Switches shall be of Piano type. Standard supply 5/15 Amp-220 Volt double electrical sockets. All the electrical accessories should be brand new with ISI mark.</p>
9.	<p>Reagent rack Stainless steel 316 two tier rack with service box 300mm wide, 2700mm long with the required S.S. vertical section for strength, stability& rigidity. The profile ends shall be covered and protected with injection moulded ABS end caps. The reagent rack shall be made of injection moulded ABS material. Vertical section should have groove for knock down assembly of service box and adjustable shelves. Shelves shall be adjustable at any required height with friction technology without any holes. The Shelves bracket should be made of minimum 16 gauge thick. 6mm thick wire glass/toughened glass shall be provided on each shelf. Refer the sketch provided.</p>	<p>Reagent rack Stainless steel two tier rack with service box 300mm wide, 2700mm long with the required S.S. vertical section for strength, stability& rigidity. The profile ends shall be covered and protected with injection moulded ABS end caps. The reagent rack should be made of injection moulded ABS material. Vertical section should have groove for knock down assembly of service box and adjustable shelves. Shelves shall be adjustable at any required height. The Shelves bracket should be made of minimum 16 gauge thick. 6mm thick wire glass/toughened glass shall be provided on each shelf. Refer the sketch provided. The grade of the S.S. should be mentioned.</p>

Modular Lab Facility in Lab2

Sl. No.	Technical Specification	Modification
2.	C Frame system-Worktops should be supported by heavy duty steel frame work. The frame shall be of rectangular box with a wall thickness of	C Frame system-Worktops should be supported by heavy duty steel frame work. The frame shall be of rectangular box, de greased

	<p>12 gauge, de greased and powder coated for smooth finish and protection. The dimension details of frame work as follows.</p> <p>Vertical member of minimum 60x40mm.</p> <p>Horizontal top member 50x40mm.</p> <p>Horizontal bottom member 80x40mm.</p>	<p>and powder coated for smooth finish and protection. The dimension details of frame work as follows.</p> <p>Vertical member of minimum 60x40mm.</p>
3.	<p>Worktop</p> <p>Worktop should be made of Jet Black granite of minimum 18(±1) mm thickness . The exposed edges shall be round molded. All worktops shall be with 80mm backsplash on walls of same thickness.</p>	<p>Worktop should be made of Jet Black granite of minimum 18 mm thickness . The exposed edges shall be round molded. All worktops shall be with 80mm backsplash on walls of same thickness.</p>
4.	<p>Cabinet under work bench</p> <p>Should be fabricated of 18 gauge CRCA sheet. Base should be welded together with neat, professional MIG weld fillets. For maximum strength, fillets should be left ungrounded. Fixed Shelves shall be constructed of 18 gauge steel, with channels formed on four sides. Cabinet body & shelves are pre-treated with an iron phosphate multi-stage process that includes a final sealer and de ionized water rinse. All exposed surfaces are electro statically coated with a thermosetting laboratory grade powder coating.</p> <p>Three cabinets on each side of the work table. On either side one with 4 drawers (at least 50cmX50cmX15cm each) and the other with one drawer and one cabinet with adjustable shelves (at least 50cmx50cmx50cm)</p>	<p>Cabinet under work bench</p> <p>Should be fabricated of 18 gauge CRCA sheet. Base should be welded together with neat, professional MIG weld fillets. Fixed Shelves shall be constructed of 18 gauge steel, with channels formed on four sides. Cabinet body & shelves should be pre-treated with an iron phosphate multi-stage process that includes a final sealer and de ionized water rinse. All exposed surfaces are coated with a thermosetting laboratory grade powder coating</p> <p>Three cabinets on each side of the work table. On either side one with 4 drawers (at least 50cmX50cmX15cm each) and the other with one drawer and one cabinet with adjustable shelves (at least 50cmx50cmx50cm)</p>
7.	<p>Hinges:</p> <p>Nickel coated heavy duty, rust free, self-closing, and allowing opening up to 165 degree and should be adjustable in all three directions for perfect finish and corrections. Drawer slides should be made of metal, epoxy coated and with nylon wheels to allow smooth and silent sliding.</p>	<p>Hinges:</p> <p>Nickel coated /S.S. heavy duty, rust free, self-closing, and allowing opening up to 165 degree and should be adjustable in all three directions for perfect finish and corrections. Drawer slides should be made of metal, epoxy coated and with nylon wheels to allow smooth and silent sliding.</p>

8.	<p>Electrical sockets 5 Nos on either side. Standard Electrical Fittings/wires should be provided with flame retardant, UV stabilized, unbreakable polycarbonate casing. Connector should be of phosphor bronze to provide high conductivity, flexibility and contact pressure. Switches shall be of Piano type. Standard supply 5/15 Amp-220 Volt double electrical sockets should fully conform to IS -1293 -1988</p>	<p>Electrical sockets 5 Nos on either side. Standard Electrical Fittings/wires should be provided with flame retardant, UV stabilized, unbreakable polycarbonate casing. Connector should be of phosphor bronze to provide high conductivity, flexibility and contact pressure. Switches should be of Piano type. Standard supply 5/15 Amp-220 Volt double electrical sockets. All electrical accessories should be brand new with ISI mark.</p>
9.	<p>Reagent rack Stainless steel 316 two tier rack with service box 300mm wide, 3800mm long with the required S.S. vertical section for strength, stability& rigidity. The profile ends shall be covered and protected with injection moulded ABS end caps. The reagent rack shall be made of injection moulded ABS material. Vertical section should have groove for knock down assembly of service box and adjustable shelves. Shelves shall be adjustable at any required height with friction technology without any holes. The Shelves bracket should be made of minimum 16 gauge thick. 6mm thick wire glass/toughened glass shall be provided on each shelf. Refer the sketch provided.</p>	<p>Reagent rack Stainless steel two tier rack with service box 300mm wide, 3800mm long with the required S.S. vertical section for strength, stability& rigidity. The profile ends shall be covered and protected with injection moulded ABS end caps. The reagent rack shall be made of injection moulded ABS material. Vertical section should have groove for knock down assembly of service box and adjustable shelves. Shelves shall be adjustable at any required height. The Shelves bracket should be made of minimum 16 gauge thick. 6mm thick wire glass/toughened glass shall be provided on each shelf. Refer the sketch provided. The grade of S.S. should be mentioned.</p>

Chemical Fume Hood for Lab 1

Sl. No.	Required Technical Specification	Modification
1.	The Fume cupboards should be installed and commissioned as per ASHRAE 110 – 1995.	The C-Framed Fume cupboards should be installed and commissioned as per ASHRAE 110 – 1995.
15.	The Cabinet should be provided with 4 nos. of chemical resistant leveling jack with PVC caps.	The Cabinet should be provided with 4 nos. of chemical resistant leveling jack