



COMSATS University Islamabad, Lahore Campus

Defence Road, Off Raiwind Road, Lahore

Tender No. CUI-LHR-TN-21-1471

Case # 3320

Single Stage Two Envelop Procedure

Title of Tender: Lab Equipment's under CATBM PC-1, CUI-Lahore Campus

A. GENERAL TERMS AND CONDITIONS

1. All pages of bidding documents are mandatory to be signed / stamped, meaning thereby bidder agrees to our terms & conditions mentioned herein, failing which the bid may be rejected.
2. Any addition, deletion or modification of any clause of the procurement terms & conditions/ BoQs of CUI Lahore Campus by any vendor will not be acceptable and may lead to rejection of the bid.
3. Only registered Suppliers, who are on Active Taxpayers List (ATL) of FBR (GST & NTN), are eligible to participate in tender.
4. The contract will be executed and handed over in satisfactory conditions up to the entire satisfaction of COMSATS University Islamabad, Lahore Campus.
5. Documents along with Pay Order / Demand Draft amounting to **Rs. 1000/-** as a tender document fee (Non-Refundable) shall be submitted in favor of COMSATS University Islamabad, Lahore Campus to the address given below. No bid will be accepted without tender documents' fee.
6. Part / Advance payments is not allowed.
7. **The exact completion/installation/ delivery time from the date of the purchase / work order will be 60days. The handing over / completion time for this contract is of critical importance.**
8. Your bid proposal should be inclusive of freight and all other taxes and to be delivered at COMSATS University Islamabad (CUI), Lahore Campus's premises.
9. After opening of bids, CUI-Lahore Campus will examine the bids for completeness as per tender document.
10. In case more than one bidder have quoted same rates for an item; the bidder securing more items (in terms of cost) will be awarded the specific item.
11. Purchase order (s) will be awarded to the evaluated lowest or technically recommended bidder (s) on the basis of item wise / subtotal wise / grand total wise according to the nature of BoQs.
12. The bid should be submitted in a sealed envelope up to **May 19, 2021** on or before **1400hrs** and will be opened on the same date **at 1430hrs** in the presence of available bidders. In case of any holiday is announced by the Govt. OR any unforeseeable circumstances that prevent the tender from being opened on the date announced (Force Majure Situation), the tenders will be opened on the very next working day. Timing will remain as mentioned in the tender notice.
13. COMSATS University Islamabad, Lahore Campus, will follow the PPRA rule of **Single Stage Two Envelope Procedure;**
 - i. The bid shall comprise a single package containing **two separate envelopes**. Each envelope shall contain separately the **financial proposal** and the **technical proposal;**

Signature & Stamp of Bidder

- ii. The envelopes shall be marked as **“FINANCIAL PROPOSAL”** and **“TECHNICAL PROPOSAL”** in bold and legible letters to avoid confusion;
 - iii. Initially, only the envelope marked **“TECHNICAL PROPOSAL”** shall be opened;
 - iv. The envelope marked as **“FINANCIAL PROPOSAL”** shall be retained in the custody of the procuring agency without being opened;
 - v. The procuring agency shall evaluate the technical proposal in a manner prescribed in advance, without reference to the price and reject any proposal which does not conform to the specified requirements;
 - vi. During the technical evaluation no **amendments** in the technical proposal shall be permitted;
 - vii. The financial proposals of bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance;
 - viii. After the evaluation and approval of the technical proposal the procuring agency, shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted bids only. The financial proposal of bids found technically nonresponsive shall be returned un-opened to the respective bidders;
 - ix. and
 - x. The bid found to be the lowest evaluated bid shall be accepted.
14. The envelope should be marked as under;
- Secretary, Purchase Committee**
COMSATS University Islamabad, Lahore Campus
 Defence Road, Off Raiwind Road, Lahore.
 Tel: 042-111-001-007, Ext: 875
15. The envelope shall also bear the word **“CONFIDENTIAL”** and following identification quotation of **“Lab Equipment’s under CATBM PC-1, CUI-Lahore Campus”**.
16. The bid form (BoQs) must be duly filled in, stamped and signed by the authorized representative of the bidder.
17. **If the vendor fails to deliver the goods / services to COMSATS University Islamabad (CUI), Lahore Campus within the given deadline, any of the following can be opted by CUI Lahore campus on the recommendation of the end user and approval of the authority;**
- a. An extension in the delivery period may be granted in case a valid reason/justification with necessary documentary evidence is provided by the vendor supporting the reason for delay.
 - b. A penalty upto 10% of the invoice value may be charged.
 - c. Purchase order may be cancelled along with confiscation of earnest money if the vendor fails to deliver the goods / services after the initial or extended delivery time, as the case may be.
18. If the delivered goods / services are not according to the required quality standards / specifications, the same shall be liable to be rejected after inspection. The vendor would be required to supply as per requirements mentioned in our BoQs, otherwise the purchase / work order will be cancelled after due date with confiscation of earnest money.
19. Deduction of Income Tax and any other tax will be deducted at source according to Government prevailing rules.

20. Payment will be made on submission of Invoice in the name of “COMSATS University Islamabad (CUI), Lahore Campus” with a copy of delivery challan (s) after the complete order has been supplied, inspected and accepted which includes delivery / installation, and COMSATS acceptance / inspection thereof.
21. All prices should be valid for at least **120 days**. Withdrawal or any modification of the original offer within the validity period shall entitle CUI-Lahore Campus to forfeit the earnest money in favor of the CUI-Lahore Campus and / or put a ban on such vendor participation in tenders / works.
22. It is the sole responsibility of the agent / supplier / manufacturer to comply with the applicable laws, be national or international.
23. In case of any dispute or grievance, the matter shall be addressed as per PPRA rules.
24. The CUI-Lahore Campus reserves the right to modify the quantities of goods / services at any time before the award of purchase / work order.
25. Any defective / sub-standard item (s) will be replaced by the bidder in same quoted cost. In case of failure to supply the specific item, CUI-Lahore may issue PO to next lowest bidder to supply the item while the difference of amount will be deducted from the 1st lowest bidder’s earnest money.
26. CUI-Lahore Campus shall disqualify any firm(s), if at any stage; it finds that the information submitted, or documents provided are inaccurate, fake, ambiguous or incomplete.
27. **05% of the total value of the Invoice will be retained as security by COMSATS University Islamabad (CUI), Lahore Campus, and will be released after warranty period i.e. (As Mentioned in BoQs) which will be counted from the date of Installation / Completion of work / Supply.**
28. **The bidder is required to furnish in form of Bank deposit/ CDR / Pay order equivalent to 2% of the total Bid price as Earnest Money crossed in favor of “COMSATS University Islamabad, Lahore Campus”. Which shall be released after the completion of work / supply on submission of written request on firm / company letterhead. Any bid not accompanied by Earnest Money shall be rejected without any right of appeal.**
29. **COMSATS University Islamabad, Lahore Campus reserves the rights to accept or reject the bid if;**
 - i. Received without earnest money
 - ii. Received later than the date and time fixed for tender submission
 - iii. The tender is unsigned/ unstamped
 - iv. The offer is ambiguous
 - v. The offer is conditional
 - vi. The offer is from a firm, which is black listed by any Govt. Office.
 - vii. The offer is received by telephone/telex/fax/telegram.
 - viii. Any unsigned / ambiguous erasing, cutting / overwriting etc. is made.
30. The bidder should furnish a certificate as worded below in token of acceptance of all the terms and conditions of the tender otherwise the tender will not be considered under any circumstances.
31. The undersigned affirm that the terms and conditions as contained in this document have been read and accepted and that in the event of selection of my/our rate the agreement in the prescribed form will be entered into:
 - **Company / Vendor Name:.....**
 - **Postal Address:.....**

- **Tel. / Mobile:**.....**Email:**.....
- **NTN# :**.....**GST#:**.....
- **Signature:**
- Please also attach the Certificate supporting being Active Taxpayer as per requirement of **FBR**.

B. BoQs of Lab Equipment's under CATBM PC-1, CUI-Lahore Campus

Technical Portion (Please mention the quoted model/ brand in technical portion with no mention of price otherwise the bid will be rejected)

No change in the BoQs (Specs & Qty.) of CUI-Lahore Campus, as detailed below, is allowed. Any additional information may be mentioned in the blank columns (i.e. model / brand or Price). Any modification in CUI-Lahore Campus BoQ may lead to rejection of bid (fully or partially).				Please mention the quoted Model / Brand with meeting the all specifications mentioned in BoQs	
Sr. #	Equipment Name	Required Specifications		Qty	
1	Ultrasonic Bath	Purpose of Ultrasonic Bath	For ultra-sonication in analytical, industrial and medical applications, including intensive cleaning	02	
		Material	Stainless Steel		
		Frequency range (kHz)	Sweeping frequency		
		Timer	Must be present		
		Temp. range (°C)	Up to 80 °C		
		Ultrasonic Power (W)	100 or higher		
		Control Mode	Digital		
		Capacity (L)	5 or more		
		Accessories	Basket	01	
			Cover	01	
Warranty	12 Months from the date of installation (parts and service)				
2	3-D Camera	Purpose	A 3D Camera/Scanner for scanning of objects as 3D feed models for 3D printers, with USB supported interface	01 No.	
		Camera resolution	12 MP or higher		
		Scanning Volume	250×250×250 or higher		
		Accuracy	0.1 mm or better		
		Interface	USB 3.0		

Signature & Stamp of Bidder

		Software	For image acquisition and analysis		
		Computer/Laptop	As recommended by OEM with power back up		
		Accessories	Scanner stand, bracket, turntable, requisite cables and all accessories which are essential		
		Warranty	1-year or more		
3	Dental Chair	Purpose of the chair	A complete dental unit for dental patient treatment	01 each	
		Doctor's Tray	<ul style="list-style-type: none"> - 3 hand pieces - Individual air pressure controls with gauge - X-Ray Viewer Water flow control		
		Dental Chair	<ul style="list-style-type: none"> - Motorized chair. - Up/down and back/forward movements - adjustable head neck Emergency stoppage switch		
		Dental Light:	<ul style="list-style-type: none"> - Dental light Sensor LED Up, Down, Back forward, and inverse Movement of the light head		
		Cuspidor Unit	<ul style="list-style-type: none"> - Single Unit ceramic Spittoon and Cup filler. - Rotatable assistant Arm - Evacuator (air operated) with flow control hand piece. Water operated Saliva ejector		
		Junction Box	<ul style="list-style-type: none"> - Air and Water supply lines Air and water filters		
		Accessories	Ultrasonic Scalar Built-in Kit with tip and hand piece		
			Motorized Suction Machine- compatible with unit		
Air Turbine -compatible with unit					
		Air compressor - compatible with unit			

		Warranty	1 year warranty		
4	FDM printer	Purpose	For additive manufacturing of high-quality polymer and composite structures	02 Nos.	
		build volume (cm)	23x15x15 or larger		
		Dual extrusion	Able to print with two different materials at a time		
		Layer Thickness (micron)	≤100		
		Positioning Precision	X, Y – 12 microns or better		
		Build Platform	<ul style="list-style-type: none"> ▪ Heated platform to temperature ≥ 120 °C Aluminum or glass materials 		
		Filaments	<ul style="list-style-type: none"> ▪ Open source Filament needed – PLA, ABS, PCL (1 Kg each) 		
		Nozzel Diameter (mm)	0.3 to 0.5 (Any value in this range)		
		Filament extruder and winder	<ul style="list-style-type: none"> • Can extrude filaments from composites Should be compatible with the 3D printer 		
		Softwares	System supporting softwares with lifetime license, should support STL files		
		Computer	Specifications As recommended by OEM with genuine windows		
		Power back up	as recommended by OEM for optimum operations		
		Warranty, Training and Others	12 Months Warranty from the date of installation with vendor having good local reputation with running machines and well-trained engineers		
5	Liquid nitrogen tank	Liquid nitrogen supply tank	Vertical Dewar Tank For safe supply and storage of liquid nitrogen	01 Nos.	
		Capacity	150 Liters or more		
		Max working pressure	2.5 Mpa or better		
			Cylinder hand truck with wheels		

			4 ft. or more flexible braided stainless-steel transfer hose		
		Warranty & Others	12 Months or more from the date of installation (parts and service)		
6	Potentiostat	Purpose	Electrochemical Workstation for electrochemical measurements requiring lower and higher currents especially in the area of Sensors	01	
			It should measure		
			1. Cyclic voltammetry, 2. Differential pulse voltammetry, 3. impedance spectroscopy, 4. amperometry, 5. Chronoamperometry, 6. Galvanostatic charge discharge, 7. battery cycling and 8. Linear sweep voltammetry,		
		Electrochemical Impedance Spectroscopy (EIS) frequency range	10 μ Hz to 1 MHz		
		Maximum current	400 mA or better		
		Current Ranges	10 nA to 100 mA or better		
		Potential range	-10 to + 10 V or better		
		Accessories	Counter electrode (Pt) by OEM	01	
			Reference electrode (Ag/AgCl) by OEM	01	
			Reference electrode (Hg/HgCl ₂) by OEM	01	
			Working electrode (glassy carbon) by OEM	01	
Electrode Polishing kit	01				
Software	Unlimited licenses and free lifetime software upgrades.				
	Must be compatible with all provided hardware,				

			Advanced custom analysis with user-defined variables and models		
		Computer	Computer compatible with system and recommended by OEM with genuine windows	01	
		Power backup with additional Servo Stabilizer	online pure sinewave UPS	01	
			built in AVR capable of regulating ± 30 volts		
			Power factor ≥ 0.95		
			Power backup in case of power failure for at least 30 mins		
			Lead acid free dry battery (1 year warranty)		
			OR		
			A better alternative as recommended by OEM for optimum operations		
			12 Months from the date of installation with vendor having good local reputation with running machines and well-trained engineers		
		Installation	Complete Installation, operation, Onsite Training		
		Warranty	12 Months from the date of installation with vendor having good local reputation for providing high quality equipment. Must have well-trained engineers. Engineers must have been trained by the OEM with proof of trainings by the OEM.		
7	Plasma Spray Unit	Purpose	This atmospheric plasma spray system should be capable of depositing Hydroxyapatite and titanium coatings on metallic Substrate	01	
		Control Unit	PLC unit to control all process (interfaces & displays should be in English)		

		Communication Interface, Data should be exportable for use on computer	
	Computer	24-inch screen, independent power back up, other specifications as recommended by OEM	
	Plasma Gun	Power 80 KW or above	
	Power Supply	Current = up to 650 A or higher	
		Output power – 80 kW or higher	
	Mass flow controller	Gases (x2)	
		Powder (x1)	
	Gas Regulators and cylinders	Adequate regulators with built-in safety and pressure tested cylinders with certificates	
		Argon (2 stage regulator x1 and cylinder x2)	
		Hydrogen (2 stage regulator x1 and cylinder x2)	
	Powder Feeder		
	Powder feeder unit	Powder feeder with powder flow sensor and requisite accessories	
	Powder Hopper volume (litres)	3 (or more)	
	Other Features		
	Cooling System	Compatible cooling system	
	Electrical Distributor	Suitable breakers, switches, power distribution cabinet and wiring.	
	Sand Blasting Unit	Suitable sand blasting Unit for treatment of metal surfaces	
	Transverse unit (motorized)	X travel (mm)= 1000 or more Y travel (mm)= 300 or more	01
	Ventilation and dust removal system	Locally provided	01
	Spraying tool boat	For holding and rotating of metallic substrate	01
	Safety	Gas Safety system with Alarms and Leak detection, water and	

			electrical safety mechanism		
		Accessories	All requisite accessories to perform aforementioned functions as intended including gauges, valves, hosing, regulators, gas cylinders, O-rings/sealing-rings must be included etc. <ul style="list-style-type: none"> ▪ Spray gun ceramic ring x 2 ▪ Anode heads x 5 ▪ Cathode heads x 5 		
		Powders (Coating grade)	<ul style="list-style-type: none"> ▪ 2 kilograms – Titanium powder ▪ 2 kilograms – Hydroxyapatite powder 		
		Warranty and Company profile	12 months or more from date of installation (including service and parts) and technical support from local company and OEM for coatings development and troubleshooting.		
		Installation and training	Complete on-site installation, demonstration and training (multiple runs of coatings on metals)		
8	Electrochemical power supply with tank	Purpose	Electrochemical Power supply for anodizing of biomedical implants	01	
		General features	DC electrochemical power supply		
		Output voltages (V)	Minimum = 0		
			Maximum = 130 V (or higher)		
		Output current (A)	Minimum = 0		
			Maximum = 30 A (or higher)		
		Power	5 kW or better		
		Display	Digital display for different information		
		Accuracy (voltages)	0.5 % or better		
Resolution (voltages)	0.1V				

		Computer	Core i5 desktop with 23 inch FHD LED with 4k resolution or better 512 gb ssd or better and 1TB hard disk or better 8 GB or better Ram UHD display with Dedicated 4gb graphics card having 128-bit bus speed or better. Original Windows 10 Professional 64bit with life time license in bootable usb Wireless mouse with scroll and side buttons Wireless keyboard with multimedia buttons HD 720p (or better) Video Calling Web Cam with Autofocus and built-in noise-reducing mic	01	
		Warranty	1 year from the date of installation (parts and services)		
		UPS	As recommended by OEM		
		Installation and Training	Onsight installation and training by qualified person		
9	Vacuum Packing Unit	Purpose	To pack medical devices	01 Nos.	
		Workroom size	500*500*80mm or bigger		
		Seal Length	Sealing length: 500*10mm or bigger		
		Sealing speed	1-4 times/minute or higher		
		Materials used	Stainless Steel structure		
		Operating mode	2 modes or more		
		Display	Digital control		
		Installation & training	Complete onsite installation and training		
		Warranty & Others	12 Months from the date of installation (parts and service)		
		DZ500 2D Model	To pack medical devices		
			520*540*80mm		
			Sealing length: 500*10mm		
			1-4 times/minute		
Stainless Steel structure					
	2 modes only (Vacuum and Seal)				

10	Low-Flow Anesthesia System	Purpose	Anesthesia system for delivery of anesthetic to prepare small animals for surgical procedures.	02 Nos.	
		Tidal volume	From 25 ml or less to 1L or more		
		Number of animals	Single or multi		
		Accessories	All the required hardware and connections included in the system		
		Warranty	12 Months or more from the date of installation (parts and Service)		
11	Anesthesia Mask/Breathing Circuit	General Feature	Rodent face masks made from clear acrylic to anesthetize or resuscitate the rodents	04 Nos.	
		Size	Large anesthesia mask with co-axial non-rebreathing system		
			44mm diameter		
			38mm deep		
Diaphragm	Includes extra diaphragm material (200g or more).				
12	Automatic 4-axis CNC Lathe Machine	Purpose	<ul style="list-style-type: none"> Capable of machining sophisticated metallic parts Machine should be an automatic turning lathe with an additional y-axis for milling operation 	01 No.	
		Turning Diameter over bed (mm)	400 or better		
		Turning diameter over slide (mm)	180 or better		
		X/Z axis travel (mm)	250/500 or better		
		Working Piece Length (mm)	500 (or higher)		
		Boring size (mm)	100 or better		
		X/Z travel speed (m/mm)	10/12		
		Position Accuracy X/Z axis (mm)	0.012/0.014 or better		
		X/Z repeatability Accuracy (mm)	0.006/0.007 or better		

		Main spindle speed (rpm)	3000 or better		
		Number of Tool Stations	4 or more		
		boring tool size (mm)	Φ20 (or larger)		
		Accessories			
		y-axis			
		Jaw Chuck	01		
		Coolant device with splash guard	01		
		Tools with tool box	01 set		
		Controller	FANUC/Siemens/Mitsubishi/GSK or equivalent or better		
		Software and Programmer	LCD display with USB port and PC/MICA Card		
		Voltage stabilizer	As Recommended by OEM		
		Machine installation & training	<ul style="list-style-type: none"> Local company should have established setup and good reputation along with history of CNC operations, repair, installation/commissioning Complete installation and On-site training 		
Warranty	Warranty: 12 months or more including service and parts				
13	5 axis CNC Machining Center	Purpose	<ul style="list-style-type: none"> 4+1 or pure 5 axis Capable of machining sophisticated metallic parts Should come with all suitable attachments and accessories 	01	
		X/Y-Z travel in mm	110/110-85 or better		
		XYZ resolution	7μm or better		
		A-axis (degree)	25/-135 or equivalent or better range		
		B-axis (degree)	Continuous rotating		
		A and B axis Resolution	0.01 degree or better		
		Main spindle speed (rpm)	40000 (or more)		

		Max Speed X/Y/Z (mm/min)	1500/1500/1500 or better		
		Maximum speed (degree/sec)	A-axis 35 or better		
			C-axis 35 or better		
		Standard Accessories	Machine enclosure with door lock safety	01	
			Tooling pack minimum 5 tools (1/8 inch)	01	
			Tooling pack minimum 5 tools (1/16 inch)	01	
			Basic tooling pack with minimum 3 tools	01	
			ER40 Collets (covering the range of 1/8-1 inch)	04	
			Tool collets (3 different sizes)	02 each	
		LAPTOP	As recommended by OEM with minimum core i5 11 th Gen with 512 GB SSD and 8GB Ram		
		Power backup	As recommended by OEM		
		Warranty & Service	Warranty: Minimum period of 1 year including service and parts		
14	Dental Hand piece straight	Purpose of hand piece	A dental hand piece is a hand-held, a mechanical instrument used to perform a variety of common dental procedures, oral surgery and altering prostheses with extra long burs	01 No.	
		Body	<ul style="list-style-type: none"> - Compatible with variable contra attachments - Autoclavable up to 120°C 		
		Rotation	Up to 40000 RPM or more		
		Features	Variable control for speed		
		Warranty	12 Months or more from the date of installation		
15	Hot plates	Hot plate with magnetic stirrers	Equipped with power restore function after power failure Thermocouple compatible	14 Nos.	

		Stirring Speed range	Up to 1500 rpm or better		
		Stirring volume (H ₂ O)	Up to 5 liter or more		
		Heating Power	Ambient to 350 C or more		
		Warranty	12 Months from the date of installation		
16	Clean Synthesis and Packaging Unit	i.	<p>Air Shower: Outer size: 1520W×1220D×2360H mm, Door Sides SS 304 1.2mm thick sheet Side Walls & Panel MS Powder coated, 8 Nozzles each side and 4 Nozzles on Top Side (totally 20 nozzles), HEPA size:610*915*69 mm completely made out of stainless steel AISI 304 (satin), no need for powder coating</p> <ul style="list-style-type: none"> - microprocessor controlled parameters from the control panel (touch screen) and panic button, inside the air shower - two doors in electrical interlock system - inside the air shower fluorescent lamp 500 lux - pre filter G4 (EN 779) and HEPA filter - ISO class 5, GMP class A - options: stainless steel AISI 316, polished surface, powder coated, UV-C bactericide lamp installed within 	1 No.	
		ii.	<p>Doors (Pharma Grade): Supply of Door; Pharma grade, SS 304 Grind Finish 18SWG Frame, filling with Rockwool of high density (100 kg/m³), better isolation and sound features complete with handle / Lock / Door closer. Center Glass Double Glace Window Square flash type.</p> <ul style="list-style-type: none"> - antibacterial silicone - inside the window frame silica gel to prevent condensation between the two glass (double glass) - drop seal at the underside completely heads of air leakage, to maintain overpressure in the room - accessories (handle, lock...) out of stainless steel - ISO 14644 requirements - optional: stainless steel AISI 316, polished surface, powder coated, manual or automatic door closing mechanism 		
		Sizes	3'X7'	22 Nos.	
			4'X7' (Double Door 2'X7' each)	2 Nos.	
6'X7' (Double Door 3'X7' each)	1 No.				

		iii.	Supply of Emergency Door (Red Colour), Pharma Grade GI Powder Coated, Aluminium Push Bar Handle/lock for Emergency Sealed all sides. (3'X7')	1 No.	
		iv.	Supply of Fixed Window; Frame SS 304, Pharma Grade, Single 5 mm fixed glasses (for clean room). - double layer glass 6+6 mm, to be the same thickness as the wall panels, flushed surface with walls - antibacterial silicone - inside the window frame silica gel to prevent condensation between the two glass (double glass) - ISO 14644 requirements		
		Sizes	3'X2'-6"	10 Nos.	
			4'X2'-6"	4 Nos.	
			5'x2'-6"	2 Nos.	
		v.	<p>HEPA Filter Box (Laminar Air Flow):</p> <p>HEPA Filter Box Size (W: 4' H: 5' D: 3') with HEPA Filter H14 Eff: 99.997%, Blower, Air Diffuser ,Fluorescent & UV Light. It is a unidirectional airflow unit. HEPA-filtered vertical laminar airflow which is recirculated in the work zone creates an ultra-clean work environment for product protection</p> <p>Particular Advantages :</p> <ul style="list-style-type: none"> • No cross contamination. • No risk or inhalation of product. • Acrylic/glass around the working area. • Easy to clean. • It is equipped with an Electronic interlock system that prevents both the doors from being opened at the same time. • HEPA Filter Pass Box includes Swing type doors with view panels. • Door open indicator. • Material of Construction Matt Finish SS 304 18 SWG • Touch pad controls System. <p>ISO class 5, GMP class A - fan, air velocity setting option, microprocessor controlled parameters from the control panel (touch screen), differential pressure gauge, light 500 lux, UV-C sterilization light</p>	2 Nos.	
		vi.	GMP compliance Cross Over Bench SS 304 S Type W 60" H 18" option: with shoe compartment	1 No.	
			GMP compliance Cross Over Bench SS 304 S Type W 36" H 18"	2 Nos.	

		option: with shoe compartment	
		GMP compliance Cross Over Bench SS 304 S Type W 42" H 1820" option: with shoe compartment	1 No.
	vii.	Gowning / De gowning Cabinets / Lockers 36"Wx78"Hx12"D (With six partition and doors with lock & keys - stainless steel - slope roof, to prevent collection of dust	10 Nos.
	viii.	Stainless Steel 304 Grind Finish Table (Working Bench), 18SWG 1.5" Pipe Frame with 16SWG Table Top for Long Lasting, Argon Welded.	
	Sizes	96" L x 30" W x 42" H	1 No.
		36" L x 18" W x 42" H	2 Nos.
	ix.	Stainless Steel 304 Dull Finish Sink with Table. Size 48 Length x 24" Depth x 36" Height with 6" Collar from Two Sides Sink and Back. Sink Size 24" Length x 18" Width x 16" Deep SS 304 Pipe 1 1/2" x 1 1/2" 16 SWG, Top 16 SWG with Two Doors - sensor tap, without touching	1 No.
	x.	PASS BOX (HATCH): Pass Box Size (W: 2' H: 2' D: 1', & W 2' x H 2' x D 1-6" and other various sizes) with Fluorescent & UV Light. UV Light on during staging of product in the chamber. Features: <ul style="list-style-type: none"> • 100% Stainless Steel 304 Non Magnetic Matt Finish 18 SWG thick. • Electronic Interlock door system for minimizing contamination. • Easy transfer of material to & fro without any personal movement. Acrylic panel door (with handle) to see-through.(UV Tampered Glass <ul style="list-style-type: none"> • UV / Fluorescent Light for Germicidal & regular fluorescent for required Lux. • ISO class 5, GMP class A 	
	Sizes	W:2' H:2' D:1'	6 Nos.
		W:2' H:2' D:1'-6"	1 No.
	xi.	HAND SANITIZER:	
		Automatic Hand Sanitizer / Standard Dispenser for 900 ml Ethanol	4 Nos.
	xii.	MS Powder coated HEPA FILTER HOUSINGS/BOXES with gaskets, IN/OUT Probes for measuring	

		differential pressure across HEPA, holding arrangements, complete in all respect.	
	sizes	26 ½ ”X 26 ½”X10”	4 Nos.
		20 ½ ”X 20 ½”X10”	14 Nos.
		14 ½ ”X 14 ½”X16”	6 Nos.
	xiii.	Supply of U-TUBE Manometers / Megnahelical gauges across filter section and at Terminal/Room (Dawyers, USA)	
		Megnahelical gauges (0 ~100 Pa)	19 Nos.
		Manometer Range 0” TO 5” WG	12 Nos.
	xiv.	100% Stainless Steel 304, Non Magnetic Matt Finish 16 SWG thick, GMP DRAINS (4” DIA)	3 Nos.
	xv.	Pharma Grade conveyor belt use in production line for material transfer, material of conveyor should be rubber (oil and heat resistant) single sealed bearing, having width of less than 12”, conveyor speed 0.3 m/Min, 220V/50 Hz, 60W Power consumption and transfer weight 10 to 20 Kg/min(Approximate)	1 SET
	xvi.	To comply ISO 14644-1 / ISO 21501-4, Remote Particle count Apparatus to measures air born particle sizes 0.1 to 10 µm, air flow from 0.1 CFM with analog output option, wireless enabled, with integrated pump/VHP Resistant	1No.
	Others	Company should have experience in <ul style="list-style-type: none"> • development of clean rooms • Design and installation of HVAC systems in clean rooms 	

C. Bid Evaluation Criteria

All bids shall be evaluated in accordance with the following evaluation criteria and other terms & conditions set forth in this bidding document.

1. The bids shall be evaluated to strictly ensure that the quoted brand/ model meet all the BoQ/ specification requirements given in the bidding document for each item.
2. In addition to the BoQ requirements, vendors must meet the vendor qualification criteria /company profile requirements (if any), as set forth in this tender document.
3. Supporting literature (where available / required) of the quoted brand/ model must be attached for verification & technical evaluation of the required specification by the technical committee. In case of any clash is found between the quoted model and the supported literature may lead to rejection of bid.

D. Financial Portion (Price and Brand/Model to be mention only in Financial Proposal in a separate sealed envelope) Strictly on our BoQs Form.

Vendors are required to provide both unit and total price of each item and calculations must be made carefully to avoid mistakes. However, in case, total price does not match with the unit price and quantity due to calculation error or typo error, any of the following can be opted

1. The bid may be rejected on the reason of ambiguity (OR
2. Unit price will be considered as final and total price of the respective item will be calculated by multiplying it with the quantity required. Sub-totals and grand total will also be corrected accordingly.

No change in the BoQs (Specs & Qty.) of CUI-Lahore Campus, as detailed below, is allowed. Any additional information may be mentioned in the blank columns (i.e. model / brand or Price). Any modification in CUI-Lahore Campus BoQ may lead to rejection of bid (fully or partially).

Prices should be quoted inclusive of all applicable taxes

Sr.#	Item Name	Specifications	Qty	Prices should be quoted inclusive of all applicable taxes				
				Quoted Model / Brand	Unit Price (Rs.)	Total Amount (Rs.)		
1	Ultrasonic Bath	Purpose of Ultrasonic Bath	For ultra-sonication in analytical, industrial and medical applications, including intensive cleaning	02				
		Material	Stainless Steel					
		Frequency range (kHz)	Sweeping frequency					
		Timer	Must be present					
		Temp. range (°C)	Up to 80 °C					
		Ultrasonic Power (W)	100 or higher					
		Control Mode	Digital					
		Capacity (L)	5 or more					
		Accessories	Basket					01
			Cover					01
Warranty	12 Months from the date of installation (parts and service)							
2	3-D Camera	Purpose	A 3D Camera/Scanner for scanning of objects as 3D feed models for 3D printers, with USB supported interface	01 No.				
		Camera resolution	12 MP or higher					
		Scanning Volume	250×250×250 or higher					
		Accuracy	0.1 mm or better					
		Interface	USB 3.0					
		Software	For image acquisition and analysis					
		Computer/ Laptop	As recommended by OEM with power back up					
		Accessories	Scanner stand, bracket, turntable, requisite					

Signature & Stamp of Bidder

			cables and all accessories which are essential				
		Warranty	1-year or more				
3	Dental Chair	Purpose of the chair	A complete dental unit for dental patient treatment	01 each			
		Doctor's Tray	<ul style="list-style-type: none"> - 3 hand pieces - Individual air pressure controls with gauge - X-Ray Viewer Water flow control				
		Dental Chair	<ul style="list-style-type: none"> - Motorized chair. - Up/down and back/forward movements - adjustable head neck Emergency stoppage switch				
		Dental Light:	<ul style="list-style-type: none"> - Dental light Sensor LED Up, Down, Back forward, and inverse Movement of the light head				
		Cuspidor Unit	<ul style="list-style-type: none"> - Single Unit ceramic Spittoon and Cup filler. - Rotatable assistant Arm - Evacuator (air operated) with flow control hand piece. Water operated Saliva ejector				
		Junction Box	<ul style="list-style-type: none"> - Air and Water supply lines Air and water filters				
		Accessories	Ultrasonic Scalar Built-in Kit with tip and hand piece				
			Motorized Suction Machine- compatible with unit				
Air Turbine - compatible with unit							
Air compressor - compatible with unit							

		Warranty	1 year warranty				
4	FDM printer	Purpose	For additive manufacturing of high-quality polymer and composite structures	02 Nos.			
		build volume (cm)	23x15x15 or larger				
		Dual extrusion	Able to print with two different materials at a time				
		Layer Thickness (micron)	≤100				
		Positioning Precision	X, Y – 12 microns or better				
		Build Platform	<ul style="list-style-type: none"> ▪ Heated platform to temperature ≥ 120 °C Aluminum or glass materials				
		Filaments	<ul style="list-style-type: none"> ▪ Open source Filament needed – PLA, ABS, PCL (1 Kg each) 				
		Nozzel Diameter (mm)	0.3 to 0.5 (Any value in this range)				
		Filament extruder and winder	<ul style="list-style-type: none"> • Can extrude filaments from composites Should be compatible with the 3D printer				
		Softwares	System supporting softwares with lifetime license, should support STL files				
		Computer	Specifications As recommended by OEM with genuine windows				
		Power back up	as recommended by OEM for optimum operations				
		Warranty, Training and Others	12 Months Warranty from the date of installation with vendor having good local reputation with running machines and well-trained engineers				

5	Liquid nitrogen tank	Liquid nitrogen supply tank	Vertical Dewar Tank For safe supply and storage of liquid nitrogen	01 Nos.				
		Capacity	150 Liters or more					
		Max working pressure	2.5 Mpa or better					
			Cylinder hand truck with wheels					
			4 ft. or more flexible braided stainless-steel transfer hose					
Warranty & Others	12 Months or more from the date of installation (parts and service)							
6	Potentiostat	Purpose	Electrochemical Workstation for electrochemical measurements requiring lower and higher currents especially in the area of Sensors	01				
			It should measure					
			1. Cyclic voltammetry, 2. Differential pulse voltammetry, 3. impedance spectroscopy, 4. amperometry, 5. Chronoamperometry, 6. Galvanostatic charge discharge, 7. battery cycling and 8. Linear sweep voltammetry,					
		Electrochemical Impedance Spectroscopy (EIS) frequency range	10 μ Hz to 1 MHz					
		Maximum current	400 mA or better					
		Current Ranges	10 nA to 100 mA or better					
		Potential range	-10 to + 10 V or better					
		Accessories	Counter electrode (Pt) by OEM	01				
Reference electrode (Ag/AgCl) by OEM	01							

		Reference electrode (Hg/HgCl ₂) by OEM	01			
		Working electrode (glassy carbon) by OEM	01			
		Electrode Polishing kit	01			
	Software	Unlimited licenses and free lifetime software upgrades.				
		Must be compatible with all provided hardware,				
		Advanced custom analysis with user-defined variables and models				
	Computer	Computer compatible with system and recommended by OEM with genuine windows	01			
	Power backup with additional Servo Stabilizer	online pure sinewave UPS	01			
		built in AVR capable of regulating ± 30 volts				
		Power factor ≥ 0.95				
		Power backup in case of power failure for at least 30 mins				
		Lead acid free dry battery (1 year warranty)				
		OR				
		A better alternative as recommended by OEM for optimum operations				
		12 Months from the date of installation with vendor having good local reputation with running machines and well-trained engineers				
	Installation	Complete Installation, operation, Onsite Training				
	Warranty	12 Months from the date of installation with vendor having good local reputation for providing high quality equipment. Must have well-trained engineers.				

			Engineers must have been trained by the OEM with proof of trainings by the OEM.				
7	Plasma Spray Unit	Purpose	This atmospheric plasma spray system should be capable of depositing Hydroxyapatite and titanium coatings on metallic Substrate	01			
		Control Unit	PLC unit to control all process (interfaces & displays should be in English)				
			Communication Interface, Data should be exportable for use on computer				
		Computer	24-inch screen, independent power back up, other specifications as recommended by OEM				
		Plasma Gun	Power 80 KW or above				
		Power Supply	Current = up to 650 A or higher				
			Output power – 80 kW or higher				
		Mass flow controller	Gases (x2)				
			Powder (x1)				
		Gas Regulators and cylinders	Adequate regulators with built-in safety and pressure tested cylinders with certificates				
			Argon (2 stage regulator x1 and cylinder x2)				
			Hydrogen (2 stage regulator x1 and cylinder x2)				
		Powder Feeder					
		Powder feeder unit	Powder feeder with powder flow sensor and requisite accessories				
		Powder Hopper volume (litres)	3 (or more)				
Other Features							
Cooling System	Compatible cooling system						
Electrical Distributor	Suitable breakers, switches, power						

		distribution cabinet and wiring.			
	Sand Blasting Unit	Suitable sand blasting Unit for treatment of metal surfaces			
	Transverse unit (motorized)	X travel (mm)= 1000 or more Y travel (mm)= 300 or more	01		
	Ventilation and dust removal system	Locally provided	01		
	Spraying tool boat	For holding and rotating of metallic substrate	01		
	Safety	Gas Safety system with Alarms and Leak detection, water and electrical safety mechanism			
	Accessories	All requisite accessories to perform aforementioned functions as intended including gauges, valves, hosing, regulators, gas cylinders, O-rings/sealing-rings must be included etc. <ul style="list-style-type: none"> ▪ Spray gun ceramic ring x 2 ▪ Anode heads x 5 ▪ Cathode heads x 5 			
	Powders (Coating grade)	<ul style="list-style-type: none"> ▪ 2 kilograms – Titanium powder ▪ 2 kilograms – Hydroxyapatite powder 			
	Warranty and Company profile	12 months or more from date of installation (including service and parts) and technical support from local company and OEM for coatings development and troubleshooting.			
	Installation and training	Complete on-site installation, demonstration and training (multiple runs of coatings on metals)			

8	Electrochemical power supply with tank	Purpose	Electrochemical Power supply for anodizing of biomedical implants	01			
		General features	DC electrochemical power supply				
		Output voltages (V)	Minimum = 0				
			Maximum = 130 V (or higher)				
		Output current (A)	Minimum = 0				
			Maximum = 30 A (or higher)				
		Power	5 kW or better				
		Display	Digital display for different information				
		Accuracy (voltages)	0.5 % or better				
		Resolution (voltages)	0.1V				
		Computer	Core i5 desktop with 23 inch FHD LED with 4k resolution or better	1			
			512 gb ssd or better and 1TB hard disk or better				
			8 GB or better Ram				
			UHD display with Dedicated 4gb graphics card having 128-bit bus speed or better.				
			Original Windows 10 Professional 64bit with life time license in bootable usb				
			Wireless mouse with scroll and side buttons				
			Wireless keyboard with multimedia buttons				
		HD 720p (or better) Video Calling Web Cam with Autofocus and built-in noise-reducing mic					
Warranty	1 year from the date of installation (parts and services)						
UPS	As recommended by OEM						
Installation and Training	Onsight installation and training by qualified person						

9	Vacuum Packing Unit	Purpose	To pack medical devices	01 Nos.			
		Workroom size	500*500*80mm or bigger				
		Seal Length	Sealing length: 500*10mm or bigger				
		Sealing speed	1-4 times/minute or higher				
		Materials used	Stainless Steel structure				
		Operating mode	2 modes or more				
		Display	Digital control				
		Installation & training	Complete onsite installation and training				
		Warranty & Others	12 Months from the date of installation (parts and service)				
		DZ500 2D Model	To pack medical devices				
			520*540*80mm				
Sealing length: 500*10mm							
1-4 times/minute							
Stainless Steel structure							
2 modes only (Vacuum and Seal)							
10	Low-Flow Anesthesia System	Purpose	Anesthesia system for delivery of anesthetic to prepare small animals for surgical procedures.	02 Nos.			
		Tidal volume	From 25 ml or less to 1L or more				
		Number of animals	Single or multi				
		Accessories	All the required hardware and connections included in the system				
		Warranty	12 Months or more from the date of				

			installation (parts and Service)				
11	Anesthesia Mask/Breathing Circuit	General Feature	Rodent face masks made from clear acrylic to anesthetize or resuscitate the rodents	04 Nos.			
		Size	Large anesthesia mask with co-axial non-rebreathing system				
			44mm diameter 38mm deep				
		Diaphragm	Includes extra diaphragm material (200g or more).				
12	Automatic 4-axis CNC Lathe Machine	Purpose	<ul style="list-style-type: none"> Capable of machining sophisticated metallic parts Machine should be an automatic turning lathe with an additional y-axis for milling operation 	01 No.			
		Turning Diameter over bed (mm)	400 or better				
		Turning diameter over slide (mm)	180 or better				
		X/Z axis travel (mm)	250/500 or better				
		Working Piece Length (mm)	500 (or higher)				
		Boring size (mm)	100 or better				
		X/Z travel speed (m/mm)	10/12				
		Position Accuracy X/Z axis (mm)	0.012/0.014 or better				
		X/Z repeatability Accuracy (mm)	0.006/0.007 or better				
		Main spindle speed (rpm)	3000 or better				
		Number of Tool Stations	4 or more				
		boring tool size (mm)	Φ20 (or larger)				
		Accessories					
		y-axis					
Jaw Chuck	01						

		Coolant device with splash guard	01			
		Tools with tool box	01 set			
		Controller	FANUC/Siemens/Mitsubishi/GSK or equivalent or better			
		Software and Programmer	LCD display with USB port and PC/MICA Card			
		Voltage stabilizer	As Recommended by OEM			
		Machine installation & training	<ul style="list-style-type: none"> Local company should have established setup and good reputation along with history of CNC operations, repair, installation/commissioning Complete installation and On-site training 			
		Warranty	Warranty: 12 months or more including service and parts			
13	5 axis CNC Machining Center	Purpose	<ul style="list-style-type: none"> 4+1 or pure 5 axis Capable of machining sophisticated metallic parts Should come with all suitable attachments and accessories 	01		
		X/Y-Z travel in mm	110/110-85 or better			
		XYZ resolution	7µm or better			
		A-axis (degree)	25/-135 or equivalent or better range			
		B-axis (degree)	Continuous rotating			
		A and B axis Resolution	0.01 degree or better			
		Main spindle speed (rpm)	40000 (or more)			
		Max Speed X/Y/Z (mm/min)	1500/1500/1500 or better			
		Maximum speed (degree/sec)	A-axis 35 or better			
			C-axis 35 or better			

		Standard Accessories	Machine enclosure with door lock safety	01			
			Tooling pack minimum 5 tools (1/8 inch)	01			
			Tooling pack minimum 5 tools (1/16 inch)	01			
			Basic tooling pack with minimum 3 tools	01			
			ER40 Collets (covering the range of 1/8-1 inch)	04			
			Tool collets (3 different sizes)	02 each			
		LAPTOP	As recommended by OEM with minimum core i5 11 th Gen with 512 GB SSD and 8GB Ram				
		Power backup	As recommended by OEM				
		Warranty & Service	Warranty: Minimum period of 1 year including service and parts				
14	Dental Hand piece straight	Purpose of hand piece Body Rotation Features	A dental hand piece is a hand-held, a mechanical instrument used to perform a variety of common dental procedures, oral surgery and altering prostheses with extra long burs	01 No.			
			- Compatible with variable contra attachments - Autoclavable up to 120°C				
			Up to 40000 RPM or more				
			Variable control for speed				
		Warranty	12 Months or more from the date of installation				

15	Hot plate	Hot plate with magnetic stirrers	Equipped with power restore function after power failure Thermocouple compatible	14 Nos.			
		Stirring Speed range	Up to 1500 rpm or better				
		Stirring volume (H ₂ O)	Up to 5 liter or more				
		Heating Power	Ambient to 350 C or more				
		Warranty	12 Months from the date of installation				
16	Clean Synthesis and Packaging Unit	i.	<p>Air Shower: Outer size: 1520W×1220D×2360H mm, Door Sides SS 304 1.2mm thick sheet Side Walls & Panel MS Powder coated, 8 Nozzles each side and 4 Nozzles on Top Side (totally 20 nozzles), HEPA size:610*915*69 mm</p> <p>completely made out of stainless steel AISI 304 (satin), no need for powder coating</p> <ul style="list-style-type: none"> - microprocessor controlled parameters from the control panel (touch screen) and panic button, inside the air shower - two doors in electrical interlock system - inside the air shower fluorescent lamp 500 lux - pre filter G4 (EN 779) and HEPA filter - ISO class 5, GMP class A - options: stainless steel AISI 316, polished surface, powder coated, UV-C bactericide lamp installed within 	1 No.			

		<p>Doors (Pharma Grade): Supply of Door; Pharma grade, SS 304 Grind Finish 18SWG Frame, filling with Rockwool of high density (100 kg/m3), better isolation and sound features complete with handle / Lock / Door closer. Center Glass Double Glace Window Square flash type. - antibacterial silicone - inside the window frame silica gel to prevent condensation between the two glass (double glass) - drop seal at the underside completely heads of air leakage, to maintain overpressure in the room - accessories (handle, lock...) out of stainless steel - ISO 14644 requirements - optional: stainless steel AISI 316, polished surface, powder coated, manual or automatic door closing mechanism</p>			
		ii.			
		Sizes	3'X7'	22 Nos.	
			4'X7' (Double Door 2'X7' each)	2 Nos.	
			6'X7' (Double Door 3'X7' each)	1 No.	
		iii.	Supply of Emergency Door (Red Colour), Pharma Grade GI Powder Coated, Aluminium Push Bar Handle/lock for Emergency Sealed all sides. (3'X7')	1 No.	
		iv.	Supply of Fixed Window; Frame SS 304, Pharma Grade, Single 5 mm fixed glasses (for clean room). - double layer glass 6+6 mm, to be the same thickness as the wall panels, flushed surface with walls - antibacterial silicone - inside the window frame silica gel to prevent condensation between the two glass (double glass) - ISO 14644 requirements		
		Sizes	3'X2'-6"	10 Nos.	
			4'X2'-6"	4 Nos.	
			5'x2'-6"	2 Nos.	
		v.	HEPA Filter Box (Laminar Air Flow): HEPA Filter Box Size (W: 4' H: 5' D: 3') with HEPA Filter H14 Eff: 99.997%, Blower, Air Diffuser ,Fluorescent & UV Light. It is a unidirectional airflow unit. HEPA-	2 Nos.	

		<p>filtered vertical laminar airflow which is recirculated in the work zone creates an ultra-clean work environment for product protection</p> <p>Particular Advantages :</p> <ul style="list-style-type: none"> • No cross contamination. • No risk or inhalation of product. • Acrylic/glass around the working area. • Easy to clean. • It is equipped with an Electronic interlock system that prevents both the doors from being opened at the same time. • HEPA Filter Pass Box includes Swing type doors with view panels. • Door open indicator. • Material of Construction Matt Finish SS 304 18 SWG • Touch pad controls System. <p>ISO class 5, GMP class A</p> <p>- fan, air velocity setting option, microprocessor controlled parameters from the control panel (touch screen), differential pressure gauge, light 500 lux, UV-C sterilization light</p>			
	vi.	GMP compliance Cross Over Bench SS 304 S Type W 60" H 18" option: with shoe compartment	1 No.		
		GMP compliance Cross Over Bench SS 304 S Type W 36" H 18" option: with shoe compartment	2 Nos.		
		GMP compliance Cross Over Bench SS 304 S Type W 42" H 1820" option: with shoe compartment	1 No.		
	vii.	Gowning / De gowning Cabinets / Lockers 36"Wx78"Hx12"D (With six partition and doors with lock & keys - stainless steel - slope roof, to prevent collection of dust	10 Nos.		
	viii.	Stainless Steel 304 Grind Finish Table (Working Bench), 18SWG 1.5" Pipe Frame with 16SWG Table Top for Long Lasting, Argon Welded.			
	Sizes	96" L x 30" W x 42" H	1 No.		
		36" L x 18" W x 42" H	2 Nos.		
	ix.	Stainless Steel 304 Dull Finish Sink with Table. Size 48 Length x 24" Depth x 36" Height with 6" Collar from Two Sides Sink and Back.	1 No.		

		Sink Size 24" Length x 18" Width x 16" Deep SS 304 Pipe 1 1/2" x 1 1/2" 16 SWG, Top 16 SWG with Two Doors - sensor tap, without touching			
	x.	<p>PASS BOX (HATCH):</p> <p>Pass Box Size (W: 2' H: 2' D: 1', & W 2' x H 2' x D 1'-6" and other various sizes) with Fluorescent & UV Light. UV Light on during staging of product in the chamber.</p> <p>Features:</p> <ul style="list-style-type: none"> • 100% Stainless Steel 304 Non Magnetic Matt Finish 18 SWG thick. • Electronic Interlock door system for minimizing contamination. • Easy transfer of material to & fro without any personal movement. <p>Acrylic panel door (with handle) to see-through.(UV Tampered Glass</p> <ul style="list-style-type: none"> • UV / Fluorescent Light for Germicidal & regular fluorescent for required Lux. • ISO class 5, GMP class A 			
		Sizes	W:2' H:2' D:1'	6 Nos.	
			W:2' H:2' D:1'-6"	1 No.	
	xi.	HAND SANITIZER:			
		Automatic Hand Sanitizer / Standard Dispenser for 900 ml Ethanol		4 Nos.	
	xii.	MS Powder coated HEPA FILTER HOUSINGS/BOXES with gaskets, IN/OUT Probes for measuring differential pressure across HEPA, holding arrangements, complete in all respect.			
		sizes	26 1/2" X 26 1/2" X 10"	4 Nos.	
			20 1/2" X 20 1/2" X 10"	14 Nos.	
			14 1/2" X 14 1/2" X 16"	6 Nos.	
	xiii.	Supply of U-TUBE Manometers / Megnahelical gauges across filter section and at Terminal/Room (Dawyers, USA)			
		Megnahelical gauges (0 ~100 Pa)		19 Nos.	
		Manometer Range 0" TO 5" WG		12 Nos.	

		xiv.	100% Stainless Steel 304, Non Magnetic Matt Finish 16 SWG thick, GMP DRAINS (4" DIA)	3 Nos.			
		xv.	Pharma Grade conveyor belt use in production line for material transfer, material of conveyor should be rubber (oil and heat resistant) single sealed bearing, having width of less than 12", conveyor speed 0.3 m/Min, 220V/50 Hz, 60W Power consumption and transfer weight 10 to 20 Kg/min(Approximate)	1 SET			
		xvi.	To comply ISO 14644-1 / ISO 21501-4, Remote Particle count Apparatus to measures air born particle sizes 0.1 to 10 µm, air flow from 0.1 CFM with analog output option, wireless enabled, with integrated pump/VHP Resistant	1No.			
		Others	Company should have experience in <ul style="list-style-type: none"> • development of clean rooms • Design and installation of HVAC systems in clean rooms 				

E. Special Terms and conditions;

- i. Bidders are requested to quote genuine / quality products without compromising on quality. The supplied products shall be inspected by our technical experts with respect to BoQs requirements and quality standards.**
- ii. Please submit the technical and financial bid (rates) on our prescribed BoQs Form and clearly mention the quoted model / brand, with complete terms and conditions signed, stamped with both bids, otherwise your bid (s) may be rejected.**
- iii. Purchase / work order (s) will be awarded on **Item Wise Basis**.**
- iv. Kindly attach the **Tender fee with Technical Bid** and **Bid money / CDR with Financial Bid**.**
- v. Multiple rates of an item may also lead to the rejection of bid / item.**