

# **COMSATS** University Islamabad, Lahore Campus Defence Road, Off Raiwind Road, Lahore

Tender No. CUI-LHR-TN-21-1533

Case # 3442

## **Single Stage Two Envelop Procedure**

Title of Tender: Lab Equipment for Labs for Pharmacy Department, 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 & Income Tax), 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 90 days. 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 **December 08, 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**;

- 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 <u>"FINANCIAL PROPOSAL"</u> 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 for Labs for Pharmacy Department, 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. 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.

- 20. Deduction of Income Tax and any other tax will be deducted at source according to Government prevailing rules.
- 21. Payment will be made as per PPRA rule 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.
- 22. All prices should be valid for at least <u>120 days.</u> 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.
- 23. It is the sole responsibility of the agent / supplier / manufacturer to comply with the applicable laws, be national or international.
- 24. In case of any dispute or grievance, the matter shall be addressed as per PPRA rules.
- 25. The CUI-Lahore Campus reserves the right to modify the quantities of goods / services at any time before the award of purchase / work order.
- 26. 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.
- 27. 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.
- 28. <u>05%</u> of the total value of the <u>Invoice</u> will be retained as security by COMSATS University Islamabad (CUI), Lahore Campus, and will be released after warranty period i.e. <u>(As Mentioned in BoQs)</u> which will be counted from the date of Installation / Completion of work / Supply.
- 29. The bidder is required to furnish in form of <u>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"</u>. 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.
- 30. 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.
- 31. 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.
- 32. 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:
•	<u>NTN# :</u> <u>GST#:</u>
•	Signature:
•	Please also attach the Certificate supporting being Active Taxpayer as per requirement of FBR.

## B. BoQs of Lab Equipment for Labs for Pharmacy Department, CUI-Lahore Campus

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

is al mod	change in the BoQs (Specs & Qty.) of CUI-Lahore Campus, as do lowed. Any additional information may be mentioned in the blank lel / brand or Price). Any modification in CUI-Lahore Campus Exejection of bid (fully or partially).	Please mention the Quoted Model / Brand with meeting the all specifications		
Sr. #	Item Name & Specifications	mentioned in BoQs		
1	Fluidized bed dryer Function: Particle coating, mixing, drying Capacity: 100-1000 g Temperature: 40-150°C Compressed air: ~ 7 bar Nozzle Type: Two fluid nozzle Nozzle jet: 0.7-2.0 mm Airflow: 0-150 m³/h Peristaltic pump: ~1000 mL/h Heater power: 3 KW Main chamber material: Stainless steel (SS) Body material: SS Seal of cyclone/cylinder: Silicone Dimensions: 2100*1800*3450 Including Installation and Commissioning Warranty: One Year	1	No.	
2	Single punch machine Dies: 1 set Pressure: 15-60 KN Diameter of Tablet: 13-25 mm Depth of Fill: 11-15 mm Thickness of Tablet: 6-8 mm Production Capacity: 2000-5000 pcs/H Motor: 220V/50HZ/370W Machine Size: 550*450*650 mm Net Weight: 60-100 Kg Including Installation and Commissioning Warranty: One Year	1	No.	

				CUI-LHR-PUR-Tender-001
3	Tablet coating pan (1-5 kg) Gross Capacity: 9-10 Liters Working Capacity: 2-3 Liters Baffles Inside Pan: 3 nos Dimensions: 12" Dia x 9" height with flange Net Weight: 5 KG Gross weight: 20 KG Packing: 13" x 13" x 12" Including Installation and Commissioning Warranty: One Year	1	No.	
4	Coating pan blower TEFC Electric Motor: Preferably 3 phase, 440 V, 3000 RPM Electric Heater: 40-120°C, thermostat control and flexible hose pipe Including Installation and Commissioning Warranty: One Year	1	No.	
5	Tablet polisher Gross Capacity: 9-10 Liters Working Capacity: 2-3 Liters Baffles Inside Pan: 3 nos Dimensions: 12" Dia x 9" height with flange Net Weight: 5 KG, Gross weight: 20 KG Packing: 13" x 13" x 12" Inner side of pan lined with suitable fabric for polishing purpose Including Installation and Commissioning Warranty: One Year	1	No.	
6	Dry granulator Dimensions (L*W*H): 450*200*550 mm Power: 550 W Raw Material: SS Voltage: 220 V Weight: 30-60 kg, Capacity: 1-15 kg Granule Diameter: 0.8-2.5 mm Including Installation and Commissioning Warranty: One Year	1	No.	
7	Capsule filling machine Type: Manual Plates for: Putting of capsules by hand Removal of caps Filling of powder by dispensing of brush pressing Fixing of caps and sealing Injection of capsules Main Body Material: SS Capacity: 100 capsules at a time Contact Parts: Made of SS for 100 capsules of size 0-5 Including Installation and Commissioning	1	No.	

				CUI-LHK-PUK-Tender-001
	<u>Hardness tester (Monsantro type)</u>			
	Accuracy: 0.2 kg			
8	Least Count: 0.2 kg	5	Nos.	
	Safe Testing Force: 20 kg			
	Maximum Tablet Diameter: 2 – 28 mm			
	Friabilator			
	Drum rotation: $25 \pm 1$ rpm			
	Accuracy: ± 1 revolution			
9	Resolution: 1 revolution	1	No.	
	Range 0-999 revolutions			
	Operating Temp. Range: 10°C to 50°C			
	Power 230 V $\pm$ 10%, 50 Hz.			
	Warranty: One Year			
	Sonicator both			
	Sonicator bath			
10	Tank capacity: 5L	1	No.	
	Sonication Power: up to 500W max			
	Frequency: 40 kHz			
	Viscometer (spindle-plate, up to 600 rpm)			
	Measurement range: 1 cP – 13M cP			
	Rotor speed: 0.3 – 100 RPM			
	=			
	Measurement error: ±1% (F.S)			
11	Spring Torque: upto 7,187.0 Dyne-cm or more	1	No.	
	Spindles: total 6 spindles (4 LV and 1 RV & 1 HB)			
	Sample cylinder: 20 – 100 mL			
	Communication with the PC: RS232 interface Power supply:			
	AC 220V±10%			
	Warranty: One Year			
	Fourier Transform InfraRed (FT-IR) spectrophotometer			
	Standard Wavenumber Measurement Range 7,800 to 350 cm <sup>-1</sup>			
	Optional Extended Wavenumber Range			
	15,000 to 2,200 cm <sup>-1</sup> , 5,000 to 220 cm <sup>-1</sup>			
	Display Wavenumber Range			
	15,000 to 0 cm <sup>-1</sup> (standard)			
12	Wavenumber Accuracy	1	No.	
	Within $\pm 0.01$ cm <sup>-1</sup> (theoretical value)			
	Maximum Resolution: 0.4 cm <sup>-1</sup>			
	Additional ATR Option: Diamond Crystal			
	Spectral Range: 5000 – 80 cm <sup>-1</sup>			
	Including Installation and Commissioning			
	Warranty: One Year			
	Optical Microscope (connected with 2-megapixel camera)			
	• Total magnification: 40X-100X-250X-400X-1000X-2500X			
	• Eyepieces: wide field WF10X and WF25X			
	• Objective: achromatic DIN 4X, 10X, 40X(S), 100X(S, Oil)			
	• Viewing head: 45°Inclined 360°swiveling trinocular			
13	• Sliding adjustable interpupillary distance: 2-3/16" ~ 2-	1	No.	
	$15/16"(55\text{mm} \sim 75\text{mm})$			
	Ocular diopter adjustable on both eyetubes			
	Nosepiece: revolving quadruple			
	• Stage: mechanical double layer size: 4-1/2"x 4-15/16" (115mm x			
	125mm)			

				UI-LHR-PUR-Tender-001
	• Stage x-y stroke (travel range): 2-13/16" x 1-3/16" (70mm x			
	30mm)			
	• Condenser & diaphragm: NA1.25 Abbe condenser with iris			
	<ul><li>diaphragm</li><li>Transmitted (lower) illuminator: LED light, intensity adjustable</li></ul>			
	• Focus adjustment: Coaxial coarse & fine knobs on both sides			
	All metal mechanical components			
	<ul> <li>All metal mechanical components</li> <li>Power supply: AC/DC adapter, 100V-240V (UL approved)</li> </ul>			
	• Digital camera:			
	True color 2592x1944 pixels (5MP)			
	Frame speed: 2fps at 2592x1944, 3fps at 2048x1536, 5fps at			
	1600x1200, 7.5fps at 1280x1024			
	Software compatible with Windows operating systems			
	Offers capturing still images, stitching, EDF, video recording			
	and measurement functions			
	USB2.0 cable included			
	Including Installation and Commissioning			
	Warranty: One Year			
	Filtration Assembly with vacuum pump			
	Receiving Flask Capacity: 3000 mL			
	Receiving Flask makeup/material: High borosilicate glass			
	Holder/Clamp: SS			
	Funnel/Filter Cup Volume: 300-500 mL			
	Membrane Filter Joint/sand core			
	Material: High borosilicate glass			
	Membrane diameter: 40-60 mm			
	Sand core diameter: 40-45 mm			
	Filter sieve aperture: 30-50 µm			
14	Vacuum Pump	1	No.	
	Power: 60-80 W			
	Current: 0.3-0.4 A			
	Motor Speed: 1400-1500 RPM			
	Ultimate Vacuum: 150-200 mbar			
	Flow Rate: 2-5 L/min			
	Outlet: 8 mm			
	Weight: 4-6 kg			
	Noise level: 50 dB			
	Warranty One Year			
	Double jacketed steam kettle			
	Kettle structure			
	Double Jacketed (for steam flow)			
	Self-contained steam source			
	Electric heater fitted			
	Safety valve			
15	Water fill assembly	1	No.	
	Kettle Body Material: SS			
	Kettle Lid/dome cover Material: SS			
	Kettle dimensions: 20" diameter x 22" deep			
	Kettle temperature (steam): 50-150°C			
	Warranty One Year			
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			C	UI-LHR-PUR-Tender-001
	<ul> <li><u>Silverson mixer (20 liter)</u></li> <li>Laboratory scale, medium size mixer (40-50" H) made of SS</li> </ul>			
16	<ul> <li>Interchangeable rotor/stator mixing head made of SS, speed 5000-10000 RPM, speed control</li> <li>Fitted with metal stand (SS or MS)</li> <li>Motor Unit – 1 hp, 220V</li> <li>Sample holding pan – made of SS,</li> <li>gross capacity 20 L, working capacity 2-5 L</li> <li>Including Installation and Commissioning</li> <li>Warranty: One Year</li> </ul>	1	No.	
	Overhead stirrer			
17	<ul> <li>Brushless DC motor</li> <li>Speed range: 50-3000 RPM, Speed Control</li> <li>Fitted with iron stand (SS or MS)</li> <li>Rotating shafts with peddles made of SS/chrome plated MS</li> <li>Maximum stirring capacity: 20 L</li> <li>Torque Max: 60 Ncm</li> <li>Viscosity Max: 50000 mPas</li> <li>Warranty One Year</li> </ul>	1	No.	
	Ointment roller mill Type: Triple Roller			
18	Power source: Electric Material: Hard chrome plated steel Throughput: 0.02-2 L/hr Roller diameter: 80 mm Roller length: 200 mm Rotor speed ratio (n1 : n2 : n3): 9 : 3 : 1 Scraper knife material between roller: SS Universal scraper system: Standard Voltage: 220 V Size: 500*460*500 mm Including Installation and Commissioning Warranty: One Year	1	No.	
19	<ul> <li>Suppository molds x 6 (Price of six molds)</li> <li>Made of brass or gun metal, polished surface</li> <li>6-moulds set</li> </ul>	1	No.	
	Capacity: 1-2 g  Stainless Steel tables			
20	Height: 3 feet Width: 5 feet Depth: 2.5 feet	5	Nos.	
21	Stainless Steel trays Height: 2 inches Width: 2 feet Depth: 1.5 feet	5	Nos.	
22	Shaking water bath Stainless steel construction with an operating range from +20+99.9 °C. User-friendly operation via keypad with	1	No.	

			C	UI-LHR-PUR-Tender-001
	bright LED display. Electronic timer from 1 min to 9h 59 min.			
	Shaking frequency adjustable from 20 to 200 rpm.			
	Shaking stroke = 15 mm.			
	Warranty One Year			
	Vortex mixer			
	Includes both cup head and 3 in. head with cover.			
22	Units are supplied with a 72in. (183cm), 3-wire cord and		<b>3</b> . T	
23	plug	1	No.	
	Orbit: 4.9 mm			
	Warranty One Year			
	Analytical Balance			
	Weighing Capacity: 0.1 mg – 120 g			
	Readability: 0.1mg			
l	Repeatability: 0.1mg	_		
24	Linearity: 0.2mg	1	No.	
	,			
	Low temperature drift effect: 2.0ppm/°C			
	Weighing Platform dia.: 90mm			
	Warranty One Year			
	<b>Analytical High Performance Liquid Chromatography</b>			
	(with UV detector, Isocratic, with auto-sampler)			
	Column Capacity: 1 – 4			
	Column ID Reader Option: Optional			
	Flow Range: 0.05 to 5 mL/min			
	Injection Range: 0.1-100 μL			
25	Line Voltage: 100-240 VAC	1	No.	
	Auto Vial Sampler with Integrated Column Compartment			
	Pump Type: Isocratic			
	System Pressure Operating Range: up to 600 bar			
	, ,			
	UV-Visible Detector, Integrated Column Oven			
	Integrated Degasser, Including Installation and			
	Commissioning, Warranty: One Year			
	HPLC columns			
26	HPLC Column XBridge C18, 130Å, 3.5μm 4.6x150mm	1	No.	
20	ı i	_	110.	
	HPLC Column Symmetry C8 100Å 5μm 4.6x250mm			
	<u>Dissolution Tester</u>			
	Number of Stirred Vessels: 8 (4 by 2 or 2 by 4 arrangement)			
	Standard Vessels: 1 liter USP/EP Borosilicate glass vessel,			
	each individually coded			
	Speed Control: 25 – 250 RPM			
	•			
	Speed Accuracy: ±2% of set speed, typically < 1%			
	Stirrer Shaft Wobble: Better than 0.2 mm total run out			
	System Tools: MonoShaft <sup>TM</sup> stirrer design or equivalent,			
27	USP/EP apparatus 1, 2, 5, 6 tool adapter, cream cell,	1	No.	
	transdermal patch tools, each tool and vessel individually			
	coded			
	Heating System: Pump for water circulation and 1400W			
	heater for fast heating up			
	Heater Range: 25 – 45°C			
	Heater Accuracy: $\pm 0.2$ °C inside the water bath			
	Including Installation and Commissioning			
	Warranty: One Year			
	warranty. One rear			

			C	UI-LHR-PUR-Tender-001
28	Disintegration apparatus (Double vessel, with disk) Number of Stirred Vessels: 2 Standard Vessels: 1liter USP/EP Borosilicate glass vessel, each individually coded Speed Control Speed Accuracy: ±2% Heating System: Pump for water circulation and 1400W heater for fast heating up Heater Range: 25 – 45°C Heater Accuracy: ± 0.2°C inside the water bath Warranty: One Year	1	No.	OI-LIIR-I OR-Tender-voi
29	Refrigerator Type: Upright Type Chemical resistance: Yes Variable temperature range (°C): -8 (or higher) to -25 (or lower) Exterior Material: Steel Effective capacity: 300 L or higher Display temperature: Digital display Voltage Stabilizer: As recommended by OEM Installation: Complete onsite installation Warranty: One Year from the date of installation (parts and service)	1	No.	
30	Eaminar flow hood. Function: protection of the sample from airborne contamination and assure sterility and minimizing cross contamination.  HEPA filter Build in LED Light UV light Integrated Fan Filter module with low noise & watt fan Differential pressure gauge monitors filter backpressure. Built-in 304 stainless steel table that provides a clean, chemical-resistant work surface. Upstream rated air velocity (m/s)= 0.45±20% Grade: A (working area clean class) Overall size: 2000*2000*650 Including Installation and Commissioning Warranty: One Year	1	No.	
31	Microaerophillic jars Function: Atmospheric Generation System Capacity: 2.5L jar to hold up to 12 disposable plastic petri dishes Polycarbonate lid with clips to hold the base Vacuum screw to maintain negative pressure	10	Nos.	
32	Gel electrophoresis  Horizontal gel apparatus: 18 – 20 cm (Length) x 25 – 30 (Breadth) x 5- 7.5 cm (Height), 40-60 samples, multichannel pipette compatible combs and gel caster.	1	No.	

			C	UI-LHR-PUR-Tender-001
	Vertical gel apparatus: $10 - 12$ cm (Length) x $8 - 10$			
	(Breadth) x 8 - 12 cm (Height), 5-10			
	samples, glass plate (10 x10 cm), comb capacity of 35µl -			
	50μl and gel caster.			
	Gel imaging system with UV transilluminator (white light			
	and UV light), built in with 5MP –			
	10MP camera; 1D Gel analysis Soft-ware.			
	Power pack (output $10 - 300 \text{ V}$ ) with output terminals, timer,			
	3 digit LED display and start/stop function.			
	Including Installation and Commissioning			
	Warranty: One Year			
	Carbon dioxide incubator			
	- Microprocessor controlled 170 Ltr direct heat stackable			
	CO2 Incubator temperature control from 4°C above ambient			
	to 50°C, with control accuracy $\pm 0.1$ °C. with high Tem.			
	Decontamination at 120.			
	- It should have six-sided direct heating with fanless, gentle			
	convection circulation to provide stable temperature control,			
	excellent uniformity and rapid recovery with no over shoot.			
22	- It should have CO2 control range from 0.2 to 20% with		N.T.	
33	control accuracy and uniformity of $\pm 0.1\%$ and should have	1	No.	
	rapid recovery of at least 0.7% per minutes.			
	- It should have Infra-red (IR) CO2 sensor			
	- It should come with minimum 4 adjustable height shelves			
	& humidity reservoir (removable) to achieve at least 95%			
	RH.			
	- It should have independent door heater eliminate condensation on inner door surface.			
	- It should have HEPA filter on CO2 inlet			
	- It should have 25mm access port.			
	Biosafety cabinet (Cell culture grade)			
	Dimensions: 42.3" w x 31.2" d x 61.7" h			
	Type: Class II, Type A2 Biological Safety Cabinets (cell			
	culture grade)			
	Protection type: product & personnel			
34	Nominal Width: 3'	1	No.	
	Nominal sash opening: 25 cm			
	Electrical: 115V, 60 Hz, 12A			
	Lighting: LED			
	Base stand: Required			

				UI-LHR-PUR-Tender-001
35	Nitrogen tank (4 L) Liquid nitrogen storage tank for cell lines with following specifications:  30L liqid nitrogen capacity Static evaporation rate = 0.33 L/day Static holding time = 90 days Neck opening = 125 mm Overall height = 670 mm Outer diameter = 451 mm Weight empty = 16 kg Number of racks = 6 Number of cryo box per rack = 4 Capacity of 2 ml vials (with 5*5 cryo box) = 600  Tissue homogenizer	1	No.	
36	Specifications: Capacity: 0.25 to 50 ml Speed Range: 5,000 to 35,000 rpm Accessories: Battery, Charger, Probes, Stand and Tool Kit Power: 110 / 220 Volts Display: Digital / Scale Features: -Can be mounted on stand -Electronic speed control -Quick release button for dispersing element -Sample volume 50 ml to 2000 ml -Single hand simple operation -Interchangeable shafts -Overload protection -Light weight and ergonomic design Warranty: One Year	1	No.	
37	Microplate reader Supports common endpoint assays Micro-volume quantification with Take3 plates Continuous UV-Vis wavelength selection: 200 nm to 999 nm High performance, high blocking filters for fluorescence and luminescence Touchscreen: Easy operation, immediate data display, Output to USB flash drive, printer or Gen5 Software, Warranty: One Year	1	No.	
38	Colony counters  Function: for quick and accurate counting of bacterial and mould colonies in Petri dishes.  Size: petri dish of 50-150mm  Dimensions: 450 x 390 x 520 mm  Counting range: 0-999  Magnification: 3-9 times  Display: 0-999  Racks: 2, Protective glass: IP21  Warranty: One Year	1	No.	

			C	UI-LHR-PUR-Tender-001
39	Mini Centrifuge -Variable speed microfuge - Maximum speed 13,500rpm - Timer and pulse start -2 tube capacity -Compact and quiet -Lid safety mechanism -Safety: Door lock Maximum capacity: 12 x 1.5 or 2.2ml tubes Maximum speed (rpm): 13,500 Strip tube rotor: 6,000 Warranty: One Year	1	No.	
40	Flow cytometer Laser specifications BLUE LASER Wavelength: 488 nm; 50 mW Beam spot size: 5 μm x 80 μm RED LASER Wavelength: 638 nm; 50 mW Beam spot size: 5 μm x 80 μm VIOLET LASER Wavelength: 405 nm; 80 mW Beam spot size: 5 μm x 80 μm Emission Optics Flow Cell Patent-pending alignment-free integrated optics cuvette flow cell design with >1.3 NA Flow Cell dimensions: 420 um x 180 um internal diameter, Forward scatter detection Si-photodiode with built-in 488/8 band pass filter: Patent pending coherent detection using photodiodes Side scatter resolution: <300nm Violet Side scatter resolution: <200nm Carryover: Less than or equal to 1.0% Sensitivity: FITC: <30 molecules of equivalent soluble fluorochrome (MESF-FITC) PE: <10 molecules of equivalent soluble fluorochrome (MESF-PE) Fluorescence resolution: rCV <3% Warranty: One Year	1	No.	
41	Water bath Temperature Range: Ambient +5°C to 100°C Control: Digital Capacity: 28L (7.4 gal) Bath Dimensions (L x W x H): 11.7 x 19.7 x 7.9 in (29.7 x 50 x 20 cm) Warranty: One Year	1	No.	
42	Water deionizer plant Capacity: 20 LPH Voltage: 220 V, Frequency: 50 Hz Phase: 2 Storing Temperature: 30 Degree C Warranty: One Year	1	No.	

			C	CUI-LHR-PUR-Tender-001
	<b>Biochemistry Analyzer</b>			
	Sample value: 90-120 ul			
	Barcode: QR code			
	Testing time: 12 minutes / sample			
	Temperature: 37°C±0.3°C			
	Resolution: 0.001Abs			
	Absorbance: 0-3.0Abs			
	Sample type: Anti-coagulation whole blood, serum, plasma			
	QC & Calibrate: IQC intelligent QC			
	Work condition: Temperature: 10-30°C			
	Humidity: < 30%-70%			
43	Testing principle: Absorption spectroscopy. transmission turbidimetry	1	No.	
	Testing method: End point, kinetic, fixed time, turbidmetry etc			
	Light source: 12V/20W, halogen lamp, lifespan is over 2500 hours			
	Power supply: AC 100V-240V, 50Hz/60Hz			
	Power: Max. 105W			
	Display: 7.0 inch touch screen			
	Storage: 500000 results			
	Printer: Built-in thermal printer			
	Connectors: 4 USB ports, 1 Lan port			
	Dimension (L*W*H): 25*20*30 cm			
	Weight: 4.2 Kg, Warranty: One Year			
44	Reflux flask and condenser double / triple necked	2	Nos.	
	Made of Pyrex or equivalent	_		
	Pyrogen Tester			
	Measuring Range: +35 to +45 °C.			
	Measuring Accuracy: ±0.1 °C.			
45	Resolution: 0.01 °C.	1	No.	
	Operating Temperature Range: +5 to +50 °C.			
	Capacity: 120 Channels – 3 modules of 40 channels each.			
	Sample Rate: 1/ min. to 1/hour.			

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

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 Campu detailed below, is allowed. Any additional information may mentioned in the blank columns (i.e. model / brand or Price). modification in CUI-Lahore Campus BoQ may lead to rejection or		nay be e). Any		ald be quoted applicable ta		
Sr. #	Item Name Specifications		Qty	Quoted Model / Brand	Unit Price (Rs.)	Total Amount (Rs.)
1	Fluidized bed dryer Function: Particle coating, mixing, drying Capacity: 100-1000 g Temperature: 40-150°C Compressed air: ~ 7 bar Nozzle Type: Two fluid nozzle Nozzle jet: 0.7-2.0 mm Airflow: 0-150 m³/h Peristaltic pump: ~1000 mL/h Heater power: 3 KW Main chamber material: Stainless steel (SS) Body material: SS Seal of cyclone/cylinder: Silicone Dimensions: 2100*1800*3450 Including Installation and Commissioning Warranty: One Year	1	No.			
2	Single punch machine Dies: 1 set Pressure: 15-60 KN Diameter of Tablet: 13-25 mm Depth of Fill: 11-15 mm Thickness of Tablet: 6-8 mm Production Capacity: 2000-5000 pcs/H Motor: 220V/50HZ/370W Machine Size: 550*450*650 mm Net Weight: 60-100 Kg Including Installation and Commissioning Warranty: One Year	1	No.			

		,		Ct	JI-LHR-PUR-1	enger-uu1
	Tablet coating pan (1-5 kg) Gross Capacity: 9-10 Liters					
	Working Capacity: 2-3 Liters					
	Baffles Inside Pan: 3 nos					
3	Dimensions: 12" Dia x 9" height with flange	1	No.			
	Net Weight: 5 KG					
	Gross weight: 20 KG					
	Packing: 13" x 13" x 12"					
	Including Installation and Commissioning					
	Warranty: One Year					
	Coating pan blower					
	TEFC Electric Motor: Preferably 3 phase, 440 V,					
	3000 RPM					
4	Electric Heater: 40-120°C, thermostat control and	1	No.			
	flexible hose pipe					
	Including Installation and Commissioning					
	Warranty: One Year					
	Tablet polisher					
	Gross Capacity: 9-10 Liters					
	Working Capacity: 2-3 Liters					
	Baffles Inside Pan: 3 nos					
5						
	Dimensions: 12" Dia x 9" height with flange	1	No.			
	Net Weight: 5 KG, Gross weight: 20 KG	1	NO.			
	Packing: 13" x 13" x 12"					
	Inner side of pan lined with suitable fabric for					
	polishing purpose					
	Including Installation and Commissioning					
	Warranty: One Year					
	<u>Dry granulator</u> Dimensions (L*W*H): 450*200*550 mm					
	Power: 550 W					
			No.			
	Raw Material: SS	1				
6	Voltage: 220 V					
	Weight: 30-60 kg, Capacity: 1-15 kg					
	Granule Diameter: 0.8-2.5 mm					
	Including Installation and Commissioning					
	Warranty: One Year					
	Capsule filling machine					
	Type: Manual					
	<u>Plates for:</u>					
	<ul> <li>Putting of capsules by hand</li> </ul>					
	Removal of caps					
	• Filling of powder by dispensing of brush					
	pressing					
7	<ul> <li>Fixing of caps and sealing</li> </ul>	1	No.			
	Injection of capsules  Main Dady Material, SS					
	Main Body Material: SS					
	Capacity: 100 capsules at a time					
	Contact Parts: Made of SS for 100 capsules of size					
	0-5					
	Including Installation and Commissioning					

	,			 JI-LHK-PUK-I	ender-oor
9	Hardness tester (Monsantro type) Accuracy: 0.2 kg Least Count: 0.2 kg Safe Testing Force: 20 kg Maximum Tablet Diameter: 2 – 28 mm  Friabilator Drum rotation: 25 ± 1 rpm Accuracy: ± 1 revolution Resolution: 1 revolution Range 0-999 revolutions Operating Temp. Range: 10°C to 50°C Power 230 V ± 10%, 50 Hz. Warranty: One Year	1	Nos.		
10	Sonicator bath Tank capacity: 5L Sonication Power: up to 500W max Frequency: 40 kHz	1	No.		
11	Viscometer (spindle-plate, up to 600 rpm)  Measurement range: 1 cP - 13M cP  Rotor speed: 0.3 - 100 RPM  Measurement error: ±1% (F.S)  Spring Torque: upto 7,187.0 Dyne-cm or more  Spindles: total 6 spindles (4 LV and 1 RV & 1 HB)  Sample cylinder: 20 - 100 mL  Communication with the PC: RS232 interface  Power supply: AC 220V±10%  Warranty: One Year	1	No.		
12	Fourier Transform InfraRed (FT-IR) spectrophotometer Standard Wavenumber Measurement Range 7,800 to 350 cm <sup>-1</sup> Optional Extended Wavenumber Range 15,000 to 2,200 cm <sup>-1</sup> , 5,000 to 220 cm <sup>-1</sup> Display Wavenumber Range 15,000 to 0 cm <sup>-1</sup> (standard) Wavenumber Accuracy Within ± 0.01 cm <sup>-1</sup> (theoretical value) Maximum Resolution: 0.4 cm <sup>-1</sup> Additional ATR Option: Diamond Crystal Spectral Range: 5000 – 80 cm <sup>-1</sup> Including Installation and Commissioning	1	No.		
13	Warranty: One Year  Optical Microscope (connected with 2-megapixel camera)  Total magnification: 40X-100X-250X-400X-1000X-2500X  Eyepieces: wide field WF10X and WF25X  Objective: achromatic DIN 4X, 10X, 40X(S), 100X(S, Oil)	1	No.		

	• Viewing head: 45°Inclined 360°swiveling				
	trinocular				
	• Sliding adjustable interpupillary distance: 2-				
	3/16" ~ 2-15/16"(55mm ~ 75mm)				
	Ocular diopter adjustable on both eyetubes				
	Nosepiece: revolving quadruple				
	• Stage: mechanical double layer size: 4-1/2"x 4-				
	15/16" (115mm x 125mm)				
	• Stage x-y stroke (travel range): 2-13/16" x 1-3/16" (70mm x 30mm)				
	• Condenser & diaphragm: NA1.25 Abbe				
	condenser with iris diaphragm				
	• Transmitted (lower) illuminator: LED light,				
	intensity adjustable				
	• Focus adjustment: Coaxial coarse & fine knobs				
	on both sides				
	All metal mechanical components				
	• Power supply: AC/DC adapter, 100V-240V (UL				
	approved)				
	• <u>Digital camera:</u>				
	True color 2592x1944 pixels (5MP)				
	Frame speed: 2fps at 2592x1944, 3fps at				
	2048x1536, 5fps at 1600x1200, 7.5fps at				
	1280x1024				
	Software compatible with Windows operating				
	systems Offers capturing still images, stitching, EDF, video				
	recording and measurement functions				
	USB2.0 cable included				
	Including Installation and Commissioning				
	Warranty: One Year				
	Filtration Assembly with vacuum pump				
	Receiving Flask Capacity: 3000 mL				
	Receiving Flask makeup/material: High				
	borosilicate glass				
	Holder/Clamp: SS				
	Funnel/Filter Cup Volume: 300-500 mL				
	Membrane Filter Joint/sand core				
	Material: High borosilicate glass				
	Membrane diameter: 40-60 mm				
14	Sand core diameter: 40-45 mm	1	No.		
	Filter sieve aperture: 30-50 μm				
	Vacuum Pump Power: 60-80 W				
	Current: 0.3-0.4 A				
	Motor Speed: 1400-1500 RPM				
	Ultimate Vacuum: 150-200 mbar				
	Flow Rate: 2-5 L/min				
	Outlet: 8 mm				
	Weight: 4-6 kg, Noise level: 50 dB				
	Warranty One Year				

				Ct	JI-LHR-PUR-1	ender-001
15	Double jacketed steam kettle Kettle structure Double Jacketed (for steam flow) Self-contained steam source Electric heater fitted Safety valve Water fill assembly Kettle Body Material: SS Kettle Lid/dome cover Material: SS Kettle dimensions: 20" diameter x 22" deep Kettle temperature (steam): 50-150°C Warranty One Year	1	No.		A-LIIK-I UK-I	ciuci-sor
16	<ul> <li>Silverson mixer (20 liter)</li> <li>Laboratory scale, medium size mixer (40-50" H) made of SS</li> <li>Interchangeable rotor/stator mixing head made of SS, speed 5000-10000 RPM, speed control</li> <li>Fitted with metal stand (SS or MS)</li> <li>Motor Unit – 1 hp, 220V</li> <li>Sample holding pan – made of SS,</li> <li>gross capacity 20 L, working capacity 2-5 L</li> <li>Including Installation and Commissioning Warranty: One Year</li> </ul>	1	No.			
17	<ul> <li>Overhead stirrer</li> <li>Brushless DC motor</li> <li>Speed range: 50-3000 RPM, Speed Control</li> <li>Fitted with iron stand (SS or MS)</li> <li>Rotating shafts with peddles made of SS/chrome plated MS</li> <li>Maximum stirring capacity: 20 L</li> <li>Torque Max: 60 Ncm</li> <li>Viscosity Max: 50000 mPas</li> <li>Warranty One Year</li> </ul>	1	No.			
18	Ointment roller mill Type: Triple Roller Power source: Electric Material: Hard chrome plated steel Throughput: 0.02-2 L/hr Roller diameter: 80 mm Roller length: 200 mm Rotor speed ratio (n1 : n2 : n3): 9 : 3 : 1 Scraper knife material between roller: SS Universal scraper system: Standard Voltage: 220 V Size: 500*460*500 mm Including Installation and Commissioning Warranty: One Year	1	No.			

				Ct	JI-LHR-PUR-T	ender-001
19	<ul> <li>Suppository molds x 6 (Price of six molds)</li> <li>Made of brass or gun metal, polished surface</li> <li>6-moulds set</li> <li>Capacity: 1-2 g</li> </ul>	1	No.			
20	Stainless Steel tables Height: 3 feet Width: 5 feet Depth: 2.5 feet	5	Nos.			
21	Stainless Steel trays Height: 2 inches Width: 2 feet Depth: 1.5 feet	5	Nos.			
22	Shaking water bath Stainless steel construction with an operating range from +20+99.9 °C. User-friendly operation via keypad with bright LED display. Electronic timer from 1 min to 9h 59 min. Shaking frequency adjustable from 20 to 200 rpm. Shaking stroke = 15 mm. Warranty One Year	1	No.			
23	Vortex mixer Includes both cup head and 3 in. head with cover. Units are supplied with a 72in. (183cm), 3-wire cord and plug Orbit: 4.9 mm Warranty One Year	1	No.			
24	Analytical Balance Weighing Capacity: 0.1 mg – 120 g Readability: 0.1 mg Repeatability: 0.1 mg Linearity: 0.2 mg Low temperature drift effect: 2.0 ppm/°C Weighing Platform dia.: 90 mm Warranty One Year	1	No.			
25	Analytical High Performance Liquid Chromatography (with UV detector, Isocratic, with auto-sampler) Column Capacity: 1 – 4 Column ID Reader Option: Optional Flow Range: 0.05 to 5 mL/min Injection Range: 0.1-100 µL Line Voltage: 100-240 VAC Auto Vial Sampler with Integrated Column Compartment Pump Type: Isocratic System Pressure Operating Range: up to 600 bar UV-Visible Detector Integrated Column Oven Integrated Degasser Including Installation and Commissioning Warranty: One Year	1	No.			

	<del>-</del>			Ct	JI-LHR-PUR-1	ender-001
26	HPLC columns HPLC Column XBridge C18, 130Å, 3.5μm 4.6x150mm HPLC Column Symmetry C8 100Å 5μm 4.6x250mm	1	No.			
27	Dissolution Tester Number of Stirred Vessels: 8 (4 by 2 or 2 by 4 arrangement) Standard Vessels: 1 liter USP/EP Borosilicate glass vessel, each individually coded Speed Control: 25 – 250 RPM Speed Accuracy: ±2% of set speed, typically < 1% Stirrer Shaft Wobble: Better than 0.2 mm total run out System Tools: MonoShaft <sup>TM</sup> stirrer design or equivalent, USP/EP apparatus 1, 2, 5, 6 tool adapter, cream cell_transdermal patch tools, each tool and vessel individually coded Heating System: Pump for water circulation and 1400W heater for fast heating up Heater Range: 25 – 45°C Heater Accuracy: ± 0.2°C inside the water bath Including Installation and Commissioning Warranty: One Year	1	No.			
28	Disintegration apparatus (Double vessel, with disk) Number of Stirred Vessels: 2 Standard Vessels: 1 liter USP/EP Borosilicate glass vessel, each individually coded Speed Control Speed Accuracy: ±2% Heating System: Pump for water circulation and 1400W heater for fast heating up Heater Range: 25 – 45°C Heater Accuracy: ± 0.2°C inside the water bath Warranty: One Year	1	No.			
29	Refrigerator Type: Upright Type Chemical resistance: Yes Variable temperature range (°C): -8 (or higher) to -25 (or lower) Exterior Material: Steel Effective capacity: 300 L or higher Display temperature: Digital display Voltage Stabilizer: As recommended by OEM Installation: Complete onsite installation Warranty: One Year from the date of installation (parts and service)	1	No.			

				CC	I-LHK-PUK-T	chuci-001
30	Laminar flow hood. Function: protection of the sample from airborne contamination and assure sterility and minimizing cross contamination.  HEPA filter Build in LED Light UV light Integrated Fan Filter module with low noise & watt fan Differential pressure gauge monitors filter backpressure.  Built-in 304 stainless steel table that provides a clean, chemical-resistant work surface. Upstream rated air velocity (m/s)= 0.45±20% Grade: A (working area clean class) Overall size: 2000*2000*650 Including Installation and Commissioning Warranty: One Year	1	No.			
31	Microaerophillic jars Function: Atmospheric Generation System Capacity: 2.5L jar to hold up to 12 disposable plastic petri dishes Polycarbonate lid with clips to hold the base Vacuum screw to maintain negative pressure	10	Nos.			
32	Gel electrophoresis  Horizontal gel apparatus: 18 – 20 cm (Length) x 25 – 30 (Breadth) x 5- 7.5 cm (Height), 40-60 samples, multichannel pipette compatible combs and gel caster.  Vertical gel apparatus: 10 – 12 cm (Length) x 8 – 10 (Breadth) x 8 - 12 cm (Height), 5-10 samples, glass plate (10 x10 cm), comb capacity of 35μl -50μl and gel caster.  Gel imaging system with UV transilluminator (white light and UV light), built in with 5MP – 10MP camera; 1D Gel analysis Soft-ware. Power pack (output 10 – 300 V) with output terminals, timer, 3 digit LED display and start/stop function. Including Installation and Commissioning Warranty: One Year	1	No.			
33	Carbon dioxide incubator  - Microprocessor controlled 170 Ltr direct heat stackable CO2 Incubator temperature control from 4°C above ambient to 50°C, with control accuracy ±0.1°C. with high Tem.  Decontamination at 120.  - It should have six-sided direct heating with fanless, gentle convection circulation to provide stable temperature control, excellent uniformity and rapid recovery with no over shoot.	1	No.			

- It should have CO2 control range from 0.2 to 20% with control accuracy and uniformity of ±0.1% and should have rapid recovery of at least 0.7% per minutes It should have Infra-red (IR) CO2 sensor - It should now with minimum 4 adjustable height shelves & humidity reservoir (removable) to achieve at least 95% RH It should have HePA filter on CO2 inlet - It should have 25mm access port.  Biosafety cabinet (Cell culture grade) Dimensions: 42.3" w x 31.2" d x 61.7" h Type: Class II, Type A2 Biological Safety Cabinets (cell culture grade) Protection type: product & personnel Nominal Width: 3' Nominal sash opening: 25 cm Electrical: 115V, 60 Hz, 12A Lighting: LED Base stand: Required  Nitrogen tank (4 L) Liquid nitrogen storage tank for cell lines with following specifications: 30L liqid nitrogen capacity Static evaporation rate = 0.33 L/day  Static holding time = 90 days Neck opening = 125 mm Overall height = 670 mm Outer diameter = 451 mm Weight empty = 16 kg, Number of racks = 6 Number of cryo box per rack = 4 Capacity of 2 ml vials (with 5*5 cryo box) = 600  Tissue homogenizer Specifications: Capacity: 0.25 to 50 ml Speed Range: 5,000 to 35,000 rpm Accessories: Battery, Charger, Probes, Stand and
20% with control accuracy and uniformity of ±0.1% and should have rapid recovery of at least 0.7% per minutes.  - It should come with minimum 4 adjustable height shelves & humidity reservoir (removable) to achieve at least 95% RH.  - It should have independent door heater eliminate condensation on inner door surface It should have EEPA filter on CO2 inlet - It should have EEPA filter on CO2 inlet - It should have 25mm access port.  Biosafety cabinet (Cell culture grade) Dimensions: 42.3" w x 31.2" d x 61.7" h Type: Class II, Type A2 Biological Safety Cabinets (cell culture grade) Protection type: product & personnel Nominal Width: 3' Nominal sash opening: 25 cm Electrical: 115V, 60 Hz, 12A Lighting: LED Base stand: Required  Nitrogen tank (4 L) Liquid nitrogen storage tank for cell lines with following specifications: 30L liqid nitrogen capacity Static evaporation rate = 0.33 L/day Static holding time = 90 days Neck opening = 125 mm Overall height = 670 mm Outer diameter = 451 mm Weight empty = 16 kg, Number of racks = 6 Number of cryo box per rack = 4 Capacity of 2 ml vials (with 5*5 cryo box) = 600  Tissue homogenizer Specifications: Capacity: 0.25 to 50 ml Speed Range: 5,000 to 35,000 rpm
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I I I I I I I I I I I I I I I I I I I
Tool Kit, Power: 110 / 220 Volts, Display:
Digital / Scale
Features:
36   -Can be mounted on stand   1   No.
-Electronic speed control
-Quick release button for dispersing element
-Sample volume 50 ml to 2000 ml
-Single hand simple operation
-Interchangeable shaπs
-Interchangeable shafts -Overload protection
-Overload protection

				 JI-LHR-PUR-T	enaer-vv1
37	Microplate reader Supports common endpoint assays Micro-volume quantification with Take3 plates Continuous UV-Vis wavelength selection: 200 nm to 999 nm High performance, high blocking filters for fluorescence and luminescence Touchscreen: Easy operation, immediate data display, Output to USB flash drive, printer or Gen5 Software, Warranty: One Year	1	No.		
38	Colony counters Function: for quick and accurate counting of bacterial and mould colonies in Petri dishes. Size: petri dish of 50-150mm Dimensions: 450 x 390 x 520 mm Counting range: 0-999 Magnification: 3-9 times Display: 0-999 Racks: 2, Protective glass: IP21 Warranty: One Year	1	No.		
39	Mini Centrifuge -Variable speed microfuge - Maximum speed 13,500rpm - Timer and pulse start -2 tube capacity -Compact and quiet -Lid safety mechanism -Safety: Door lock Maximum capacity: 12 x 1.5 or 2.2ml tubes Maximum speed (rpm): 13,500 Strip tube rotor: 6,000 Warranty: One Year	1	No.		
40	Flow cytometer Laser specifications BLUE LASER Wavelength: 488 nm; 50 mW Beam spot size: 5 μm x 80 μm RED LASER Wavelength: 638 nm; 50 mW Beam spot size: 5 μm x 80 μm VIOLET LASER Wavelength: 405 nm; 80 mW Beam spot size: 5 μm x 80 μm Emission Optics Flow Cell Patent-pending alignment-free integrated optics cuvette flow cell design with >1.3 NA Flow Cell dimensions: 420 um x 180 um internal diameter, Forward scatter detection Si-photodiode with built-in 488/8 band pass filter: Patent pending coherent detection using photodiodes Side scatter resolution: <300nm	1	No.		

		,		CI	UI-LHK-PUK-T	ender-oot
	Violet Side scatter resolution: <200nm					
	Carryover: Less than or equal to 1.0%					
	Sensitivity: FITC: <30 molecules of equivalent					
	soluble fluorochrome (MESF-FITC)					
	, ,					
	PE: <10 molecules of equivalent soluble fluorochrome					
	(MESF-PE)					
	Fluorescence resolution: rCV < 3%					
	Warranty: One Year					
	Water bath					
	Temperature Range: Ambient +5°C to 100°C					
	Control: Digital					
41	Capacity: 28L (7.4 gal)	1	No.			
71		•	110.			
	Bath Dimensions (L x W x H): 11.7 x 19.7 x 7.9 in					
	(29.7 x 50 x 20 cm)					
	Warranty: One Year					
	Water deionizer plant					
	Capacity: 20 LPH					
	Voltage: 220 V, Frequency: 50 Hz					
42	Phase: 2	1	No.			
	Storing Temperature: 30 Degree C					
	Warranty: One Year					
	<b>Biochemistry Analyzer</b>					
	Sample value: 90-120 ul					
	Barcode: QR code					
	Testing time: 12 minutes / sample					
	Temperature: 37°C±0.3°C					
	Resolution: 0.001Abs					
	Absorbance: 0-3.0Abs					
	Sample type: Anti-coagulation whole blood,					
	serum, plasma					
	QC & Calibrate: IQC intelligent QC					
	Work condition: Temperature: 10-30°C					
	Humidity: < 30%-70%					
42	Testing principle: Absorption spectroscopy.		<b>N</b> .T			
43	transmission turbidimetry	1	No.			
	Testing method: End point, kinetic, fixed time,					
	turbidmetry etc					
	Light source: 12V/20W, halogen lamp, lifespan is					
	over 2500 hours					
	Power supply: AC 100V-240V, 50Hz/60Hz					
	Power: Max. 105W					
	Display: 7.0 inch touch screen					
	Storage: 500000 results					
	Printer: Built-in thermal printer					
	Connectors: 4 USB ports, 1 Lan port					
	Dimension (L*W*H): 25*20*30 cm					
	Weight: 4.2 Kg, Warranty: One Year					
	Reflux flask and condenser double / triple					
44	necked	2	Nos.			
	Made of Pyrex or equivalent					

	Pyrogen Tester				
	Measuring Range: +35 to +45 °C.				
	Measuring Accuracy: ±0.1 °C.				
15	Resolution: 0.01 °C.	1	Nic		
45	Operating Temperature Range: +5 to +50 °C.	1	No.		
	Capacity: 120 Channels – 3 modules of 40				
	channels each.				
	Sample Rate: 1/ min. to 1/hour.				

#### E. Special Terms and conditions.

- i. Please submit the technical and financial bid (rates) on our prescribed BoQs Form and clearly mention the quoted model / brands as required in BoQs, with complete terms and conditions signed, stamped with both bids, otherwise your bid (s) may be rejected.
- ii. 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.
- iii. Mentioning only origin of manufacturing like "Local" or "China" etc. is not acceptable. The vendors must mention the brand of the quoted item failing which may lead to rejection of the bid or respective item, as the case may be.
- iv. Purchase / work order (s) will be awarded on Item Wise Basis.
- v. Kindly attach the Tender fee with Technical Bid and Bid money / CDR with Financial Bid.
- vi. Multiple rates of an item may also lead to the rejection of bid / item.