



# COMSATS University Islamabad, Lahore Campus

Defence Road, Off Raiwind Road, Lahore

Tender No. CUI, LC-TN-13-18-1072

Case # 2376

## **Single Stage Two Envelop Procedure**

**Title of Tender:**      **Lab Equipment for Pharmacy Department**

### **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, 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. 500/-** as a tender documents fee (Non-Refundable) shall be submitted in favor of COMSATS Institute of Information Technology, Lahore 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/delivery time from the date of the purchase / work order will be 60 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, Lahore Campus's premises.
9. After opening of bids, COMSATS University Islamabad, Lahore Campus will examine the bids for completeness as per tender document.
10. Purchase order (s) will be awarded to the lowest or technically recommended bidder (s) on the basis of item wise / subtotal wise / grand total wise according to the nature of BoQs.
11. The bid should be submitted in a sealed envelope up to **June 13, 2018** on or before **1100hrs** and will be opened on the same date **at 1130hrs** in the presence of available bidders.
12. 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 **“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.
13. 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
14. The envelope shall also bear the word **“CONFIDENTIAL”** and following identification quotation of **“Lab Equipment for Pharmacy Department””**.
15. The bid form (BoQs) must be duly filled in, stamped and signed by the authorized representative of the bidder.
- 16. If the vendor fails to deliver the goods / services to CUI-Lahore Campus in time then the penalty will be charged as under:-**
- a. 1% per day of the invoice price for 5 working days.
  - b. 2% per day of the invoice price for further 5 working days.
  - c. If the vendor fails to deliver the goods / services during the extended period then the purchase / work order may be cancelled, earnest money and payment may be forfeited.
17. 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.
18. Deduction of Income Tax and any other tax will be deducted at source according to Government prevailing rules.

19. Payment will be made on submission of Invoice in the name of “COMSATS University Islamabad, 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.
20. All prices should be quoted on **F.O.R (Pak Rupees) inclusive of all taxes.**
21. All prices should be valid for at least **90 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 CUI 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. **05% of the total value of the Invoice will be retained as security by COMSATS University Islamabad, Lahore Campus Only for Warranty Items as mentioned in BoQs, and will be released after warranty period (One Year) which will be counted from the date of delivery / completion of work / supply.**
26. **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 Institute of Information Technology, Lahore Campus”. Any bid not accompanied by Earnest Money shall be rejected without any right of appeal.**
27. 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.
28. 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.
29. 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.

### BoQs of Lab Equipment for Pharmacy Department

**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). Rates to be quoted inclusive of all (applicable) taxes

Sr. #	Item Name & Specifications	Qty	Quoted Model Brand with meeting the all specifications Yes / No
<b>Lab Equipment for Pharmacognosy Lab</b>			
<b>1</b>	<p><b><u>Centrifuge Machine:</u></b>            LMC-3000 or equivalent            Max RCF (bottom of tube) g-force 1700 x g            Speed (centrifuge tubes) rpm 100 to 3000            Max RCF microplate rotor g-force 560 x g            Speed (microtiter plates) rpm 100 to 2000            Centrifugation timeup to 90 minutes (1 min increment)            Temperature setting range °C- -10 to 25            Temperature control range °C --10 to 10 below ambient            Speed increment rpm 100            Chamber diameter mm 335            Display 2 line x 16 character LCD            Nominal operating voltage V ac 120 or 230 (50-60 Hz)            Power consumption W 110 (0.5A) / 120 (1A)            Ambient temperature range °C +4 to 40            Maximum noise dBA 59.4            Warranty One Year</p>	<b>02 Nos.</b>	
<b>2</b>	<p><b><u>Integrated Digital Microscope</u></b>            Specification:            Model B300e320/B300e500 or equivalent            Digital Chip 3.2MP, 1/2 ", color CMOS 5MP, 1/2.5 ", color CMOS            Resolution 2048×1536 Pixels (Maximum)            2952×1944 Pixels (Maximum)            Frame Rate 15~30 fps 15~30 fps</p>	<b>07 Nos.</b>	

	<p>C-mount 0.5×  Data Transmission USB2.0, Transmission rate:  480mps,  external power supply is not necessary  Operating System Available for Windows 2000 /  XP / 7  Image Analysis Software Digital Image Analysis  software for microscope  Integrated body with digital head, dust-proof, moisture  proof and anti-demolition  <b>Warranty One Year</b></p>		
3	<p><b><u>Oven:</u></b>  Dimensions (w x d x h cm):89.6 x 56.6 x 47.8  Rated voltage/Frequency (V~Hz):220-240  Input power (W):3050  Bottom Element Power (W):1750  Fan Element Power (W):2500  Grilling Power (W):2400  Lighting:1 x 25W Halogen  Main Oven Gross Capacity (L):84  Top Element Power (W):1200  <b>Current (A):13.2</b>  <b>Or equivalent</b>  <b>Warranty One Year</b></p>	02 Nos.	
4	<p><b><u>Water Bath 4 Holes</u></b>  Capacity: 12L (chamber of one single piece)  Digital selection of temperature/time  Hermetically sealed membrane keyboard  T range: RT+5°C - 100°C (+/-1°C)  Timer: 1' - 9999'  Acoustic signal indicates overheating: &gt; 10°C  Useful dimensions approx.: 32x30x10cm  Lid and reduction rings included (removables)  Holes N°: 4  <b>Electric draining pump</b>  <b>Or equivalent</b>  <b>Warranty One Year</b></p>	06 Nos.	

5	<p><b><u>Rota Evaporator + Chiller</u></b>  Description RE2  Lift Type Manual  Condenser Type Vertical/Horizontal  Rotation Speed (RPM) 20-320  Vapour Tube Single piece with Sleeve  for Easy Removal  Integrated Combi-Clip Yes  Suitable flask size (ml) 50-5000 ml  Rotation speed setting LED Display  Motor Power (W) 60  Heating Capacity (W) 1300  Total Power (W) 1360  Temperature Range (oC) 20 – 210  Temperature Accuracy (oC) 1  Overheat Protection Safety cutoff over +5 (oC)  Temperature Setting  Digital LED, Temperature Control Electronic  PID Control , Secondary Protection Cutoff 250oC  Material Heating Bath Ceramic Coated / SS316L  Volume Heating bath (L) 4.5L - Dia 255mm Suitable  50- 5000ml  Bath Position, Flexible to extend to suit flask size  Sealing ring, Graphite filled PTFE  Power Supply 230 VAC, 50Hz  Or equivalent, Warranty One Year</p>	<p><b>03 Nos. (Evaporator) + 01 Chiller</b></p>	
6	<p><b><u>Aspirator</u></b>  aspirator - models and specifications  FTA-1 or equivalent  Aspirator with trap flask,  Vacuum mbar -500  Trap Flask volume 1  Input voltage V dc 12  External power supply  Input AC 120-230V, 50/60Hz Output DC 12V  Flow rate (aqueous solution) ml/min 72 with  aspiration tip 666 without aspiration tip  Or equivalent Warranty One Year</p>	<p><b>01 No.</b></p>	
7	<p><b><u>Microtome</u></b>  Supplied complete with one knife 120 mm long with  back and handle in wooden box, 2 block holders, One  bottle of lubrication oil, dust cover  Spare Accessories  Special Alloy Steel Knife  Size :- 120 mm, 150 mm, 180 mm, 200 mm  Stainless Steel Back for Knife  Block Holder/Specimen Holder  Size :- 37 mm, 25 mm, 20 mm  Embedding Moulds made of S.S.</p>	<p><b>04 Nos.</b></p>	

	<p>L × W × D Size :- a. 16 × 16 × 12 mm b. 22 × 22 × 12 mm c. 32 × 25 × 12 mm  L-Moulds made of brass  Size :- a. 37 × 25 × 15 mm pair b. 50 × 25 × 15 mm pair c. 75 × 30 × 19 mm pair  Disposable Embedding Ring.  Or equivalent  Warranty One Year</p>																				
<b>Lab Equipment for Pharmacognosy Lab</b>																					
8	<p><b><u>Autoclave:</u></b></p> <table border="1"> <tr> <td><b>Chamber Dimensions Ø x L (mm)</b></td> <td><b>384 x 758</b></td> <td><b>384 x 758</b></td> </tr> <tr> <td><b>Chamber Volume (Liters)</b></td> <td><b>85L</b></td> <td><b>85L</b></td> </tr> <tr> <td><b>No. of Trays</b></td> <td><b>2</b></td> <td><b>2</b></td> </tr> <tr> <td><b>Tray Dimensions W x H x D (mm)</b></td> <td><b>Small: 286 x 25 x 675 Large: 350 x 25 x 675</b></td> <td><b>Small: 286 x 25 x 675 Large: 350 x 25 x 675</b></td> </tr> <tr> <td><b>Overall Dimensions W x H x D (mm)</b></td> <td><b>720 x 1365 x 1180</b></td> <td><b>720 x 1365 x 1180</b></td> </tr> <tr> <td><b>Autoclave Weight (kg)</b></td> <td><b>180 kg</b></td> <td><b>180 kg</b></td> </tr> </table> <p>Or equivalent</p>	<b>Chamber Dimensions Ø x L (mm)</b>	<b>384 x 758</b>	<b>384 x 758</b>	<b>Chamber Volume (Liters)</b>	<b>85L</b>	<b>85L</b>	<b>No. of Trays</b>	<b>2</b>	<b>2</b>	<b>Tray Dimensions W x H x D (mm)</b>	<b>Small: 286 x 25 x 675 Large: 350 x 25 x 675</b>	<b>Small: 286 x 25 x 675 Large: 350 x 25 x 675</b>	<b>Overall Dimensions W x H x D (mm)</b>	<b>720 x 1365 x 1180</b>	<b>720 x 1365 x 1180</b>	<b>Autoclave Weight (kg)</b>	<b>180 kg</b>	<b>180 kg</b>	02 Nos.	
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9	<p><b><u>Cool Incubator</u></b>  Temperature Display Resolution: 0.1°C  Temperature Stability: HIGH 0.3°C, LOW 0.5°C  Heating type: Stainless steel electric heater  Cooling type: Enclosed fluorine-free compressor, R134a refrigerant  Interior Dimension: 480*390*780 mm  Shelves: 2 PCS  Volume (L): 150 Liter  Timing Range: 1~9999min  Or equivalent Warranty One Year</p>	01 No.																			
10	<p><b><u>Laminar Air Flow Horizontal</u></b>  Air velocity: 0.25-0.45m/s(Adjustable)  Noise: ≤62dB(A)  Illuminance: ≥300Lx  Power Supply: AC220V,50Hz(Customized)  Rated power: 250~800W  Dimension: Customized Size/Standard Size  Material: Powder coated steel plate and SUS304 work table  Or equivalent Warranty One Year</p>	01 No.																			

11	<p><b><u>Oven</u></b>  Dimensions (w x d x h cm):89.6 x 56.6 x 47.8  Rated voltage/Frequency (V~Hz):220-240</p> <ul style="list-style-type: none"> <li>• Input power (W):3050</li> <li>• Bottom Element Power (W):1750</li> <li>• Fan Element Power (W):2500</li> <li>• Grilling Power (W):2400</li> <li>• Lighting:1 x 25W Halogen</li> <li>• Main Oven Gross Capacity (L):84</li> <li>• Top Element Power (W):1200</li> <li>• Current (A):13.2</li> </ul> <p>Or equivalent  Warranty One Year</p>	02 Nos.	
12	<p><b><u>Integrated Digital Microscope</u></b>  <b>Specification:</b>  Model B300e320 / B300e500 or equivalent  Digital Chip 3.2MP, 1/2 ", color CMOS 5MP, 1/2.5 ", color CMOS  Resolution 2048×1536 Pixels  (Maximum)  2952×1944 Pixels  (Maximum)  Frame Rate 15~30 fps 15~30 fps  C-mount 0.5×  Data Transmission USB2.0, Transmission rate:  480mps,  external power supply is not necessary  Operating System Available for Windows 2000 / XP / 7  Image Analysis Software Digital Image Analysis software for microscope  Integrated body with digital head, dust-proof, moisture proof and anti-demolition  Or equivalent  Warranty One Year</p>	10 Nos.	
13	<p><b><u>Reciprocating Shaker</u></b>  Capacity:8pcs * 2L/pc  Loaded Vessels: Separatory funnels / measuring cylinder  Shake type: Vertical shaker  Dimension: 535*475*690MM  Weight: 45kg  Function: oil and water separator  Power supply: AC 220V / 50 HZ  Operation: Automatic  Or equivalent  Warranty One Year</p>	01 No.	



14	<b><u>Freezer</u></b> Cabinet temperature: 0-10/-5 -18 Power: 390w/490w Voltage: 220v/50hz Refrigerant: R134a/R404 Oem: yes Or equivalent Warranty One Year	<b>01 No.</b>	
<b>Lab Equipment Pharmacology/ Physiology Laboratory</b>			
15	<b><u>Tissue organ bath</u></b> <b>Manual, tank 5 Liters, Chambers 5 mL, Stainless steel or equivalent.</b>	<b>09 Nos.</b>	
16	<b><u>Kymograph</u></b> Aluminium, 230 V, 50 Hz, speed selection 1.00, 1.25 mm/sec	<b>09 Nos.</b>	
17	<b><u>Digital balance</u></b> Capacity: 220 gm. Readability: 0.1 mg Minimum Load: 10 mg, Minimum Sample WT as per USP: 200 mg, Operating temperature: 18 °C to 30 °C.		
18	<b><u>Oven</u></b> (170 L, natural convection, Temperature range 5 °C above ambient up to +300 °C. Temperature Percision: 0.1 Degree Temperature Fluctuation: ±0.5 °C Timer Range: 1 ~ 9999 min <b>Shelves: 2</b> <b>Or equivalent</b> <b>Warranty One Year</b>	<b>01 No.</b>	
19	<b><u>Burner</u></b> Bunsen burner or equivalent Nickel plated burner of brass 12 mm Brass tube 100 x 12 mm Base 70 mm diameter Overall Height 145 mm.	<b>15 Nos.</b>	
20	<b><u>E.S.R stand</u></b> JP Selecta (Spain) or equivalent Stainless steel, coated, 6 pipettes.	<b>10 Nos.</b>	
21	<b><u>Spiro Meter Plastic Body</u></b>	<b>02 Nos.</b>	
22	<b><u>Glass Test Tubes</u></b> Borosilicate test tubes 15-17 mm	<b>75 Nos.</b>	
23	<b><u>Test Tub stands</u></b> Aluminium or stinless steel test tube racks 40 holes for 15-17 mm tubes.	<b>13 Nos.</b>	
24	<b><u>Neubar Chamber 0.0025mm<sup>2</sup></u></b> Thick glass slide 30 x 70 x 4mm Or equivalent	<b>05 Nos.</b>	

25	<b>Meter Rod</b>	<b>10 Nos.</b>	
26	<b>Sphygmomanometer</b> Manual sphygmomanometer with Mercury.	<b>05 Nos.</b>	
27	<b><u>Stethoscope</u></b> Measuring tip: approx. 16.5 cm Earpieces made of soft plastic Total length: approx. 1 m Tight ear clips Or equivalent	<b>05 Nos.</b>	
28	<b><u>Wet Spiro meter</u></b> Portable, accuracy $\pm 3\%$ , temperature 0 to 40 °C.	<b>05 Nos.</b>	
29	<b><u>ECG machine</u></b> Digital 12 Channel ECG Input Way: Floating and defibrillation protection Lead: Standard 12 leads. Patient leak current $L < 10 \mu A$ Patient impedance: $> 50 M\Omega$ Frequency response: 0.05 Hz ~ 150 Hz (~3dB) Time constant: Time constant $> 3.2$ sec CMRR: $> 60dB$ , $> 100$ dB (Adding filter) EMG interference filter: 35 Hz (-3dB) Or equivalent Warranty One Year	<b>01 No.</b>	
30	<b>Wattmann Filter paper or equivalent</b> Grade 1: 11 $\mu m$ 460 mm x 570 mm sheets	<b>10 Packs</b>	
31	<b><u>Antiserum A B &amp; D</u></b> Monoclonal human IgM Or equivalent	<b>5 Complete Set</b>	
<b>Lab Equipment Pharmacology/ Physiology Laboratory</b>			

32	<p><b><u>Water Bath Single Hole</u></b>  Dimension: 280×160×170 mm  Temperature is controlled accurately automatically with digital display  Temperature rang: RT-100 degrees  Heating power: 300W  Temperature precision: ≤ ±0.5 degrees, anti-cauterization  Or equivalent Warranty One Year</p>	10 Nos.	
33	<p><b><u>Triple Beam Balance</u></b>  Stainless Steel Plate, 610g Capacity, 0.1g Readability</p>	05 Nos.	
34	<p><b><u>Melting Point Appartus</u></b>  Up to 300°C, Resolution 1°C, Programmable, Sample Capacity 3 Samples Automatic and visual determination,  PID-controlled temperature ramping</p>	05 Nos.	
35	<p><b><u>Spectrophotometer</u></b>  Thermo Scientific GENESYS 10S UV-Vis or equivalent  Spectrophotometer, Dual Beam, Single cell holder and automated 6-cell changer standard, Dual Silicon Photodiodes, Drift &lt;0.0005A/hr, Graphical with LCD backlight  Warranty One Year</p>	02 Nos.	
36	<p><b><u>Digital Weight Balance</u></b>  Digital display, measuring chamber size: 180*175*200 mm, Repeatability error (standard error) ±0.002 g, Spirit bubble in front, Multi-combination wind shield-5 pieces of glassess, transparent wighing chamber, Micro loads weigh display, Auto reset  Or equivalent  Warranty One Year</p>	02 Nos.	
37	<p><b><u>Water Bath (Multiple Holes)</u></b>  Stainless Steel Boiling bath 8.81 Litres (Approx), with simmer to boil control, Heat protection, Integral constant level device to regulate the level of water  Or equivalent  Warranty One Year</p>	06 Nos.	

**Financial Portion (Price and Brand/Model to be mention only in Financial Proposal in a separate sealed envelope)**

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).			Rates to be quoted inclusive of all (applicable) taxes		
Sr. #	Item Name & Specifications	Qty	Quoted Model / Brand / Make	Unit Price (Rs.)	Total Price (Rs.)
<b>Lab Equipment for Pharmacognosy Lab</b>					
1	<p><b><u>Centrifuge Machine:</u></b>            LMC-3000 or equivalent            Max RCF (bottom of tube) g-force 1700 x g            Speed (centrifuge tubes) rpm 100 to 3000            Max RCF microplate rotor g-force 560 x g            Speed (microtiter plates) rpm 100 to 2000            Centrifugation timeup to 90 minutes (1 min increment)            Temperature setting range °C- -10 to 25            Temperature control range °C --10 to 10 below ambient            Speed increment rpm 100            Chamber diameter mm 335            Display 2 line x 16 character LCD            Nominal operating voltage V ac 120 or 230 (50-60 Hz)            Power consumption W 110 (0.5A) / 120 (1A)            Ambient temperature range °C +4 to 40            Maximum noise dBA 59.4            Warranty One Year</p>	02 Nos.			
2	<p><b><u>Integrated Digital Microscope</u></b>            Specification:            Model B300e320/B300e500 or equivalent            Digital Chip 3.2MP, 1/2 ", color CMOS            5MP, 1/2.5 ", color CMOS            Resolution 2048×1536 Pixels (Maximum)            2952×1944 Pixels</p>	07 Nos.			

	<p>(Maximum)  Frame Rate 15~30 fps  15~30 fps  C-mount 0.5×  Data Transmission rate:  USB2.0, Transmission rate:  480mps,  external power supply is not necessary  Operating System Available for  Windows 2000 / XP / 7  Image Analysis Software Digital Image  Analysis software for microscope  Integrated body with digital head, dust-  proof, moisture proof and anti-demolition  Warranty One Year</p>				
3	<p><b>Oven:</b>  Dimensions (w x d x h cm):89.6 x 56.6 x  47.8  Rated voltage/Frequency (V~Hz):220-240  Input power (W):3050  Bottom Element Power (W):1750  Fan Element Power (W):2500  Grilling Power (W):2400  Lighting:1 x 25W Halogen  Main Oven Gross Capacity (L):84  Top Element Power (W):1200  Current (A):13.2  Or equivalent Warranty One Year</p>	02 Nos.			
4	<p><b>Water Bath 4 Holes</b>  Capacity: 12L (chamber of one single piece)  Digital selection of temperature/time  Hermetically sealed membrane keyboard  T range: RT+5°C - 100°C (+/-1°C)  Timer: 1'- 9999'  Acoustic signal indicates overheating: &gt;  10°C  Useful dimensions aprox.: 32x30x10cm  Lid and reduction rings included  (removables)  Holes N°: 4  Electric draining pump  Or equivalent Warranty One Year</p>	06 Nos.			

5	<p><b><u>Rota Evaporator + Chiller</u></b>  Description RE2  Lift Type Manual  Condenser Type  Vertical/Horizontal  Rotation Speed (RPM) 20-320  Vapour Tube Single piece  with Sleeve for Easy Removal  Integrated Combi-Clip Yes  Suitable flask size (ml) 50-5000 ml  Rotation speed setting LED Display  Motor Power (W) 60  Heating Capacity (W) 1300  Total Power (W) 1360  Temperature Range (oC) 20 – 210  Temperature Accuracy (oC) 1  Overheat Protection Safety cutoff over  +5 (oC)  Temperature Setting  Digital LED  Temperature Control Electronic  PID Control  Secondary Protection Cutoff 250oC  Material Heating Bath Ceramic Coated /  SS316L  Volume Heating bath (L) 4.5L - Dia 255mm  Suitable 50- 5000ml  Bath Position  Flexible to extend to suit flask size  Sealing ring  Graphite filled PTFE, Power Supply  230 VAC, 50Hz , Or equivalent  Warranty One Year</p>	<p><b>03 Nos.  (Evaporator)  +  01  Chiller</b></p>			
6	<p><b><u>Aspirator</u></b>  aspirator - models and specifications  FTA-1 or equivalent  Aspirator with trap flask  Vacuum mbar -500  Trap Flask volume l  Input voltage V dc 12  External power supply  Input AC 120-230V, 50/60Hz Output DC  12V  Flow rate (aqueous solution) ml/min  72 with aspiration tip 666 without  aspiration tip  Or equivalent Warranty One Year</p>	<p><b>01  No.</b></p>			

7	<p><b><u>Microtome</u></b>          Supplied complete with one knife 120 mm long with back and handle in wooden box, 2 block holders, One bottle of lubrication oil, dust cover          Spare Accessories          Special Alloy Steel Knife          Size :- 120 mm, 150 mm, 180 mm, 200 mm          Stainless Steel Back for Knife          Block Holder/Specimen Holder          Size :- 37 mm, 25 mm, 20 mm          Embedding Moulds made of S.S.          L × W × D Size :- a. 16 × 16 × 12 mm b. 22 × 22 × 12 mm c. 32 × 25 × 12 mm          L-Moulds made of brass          Size :- a. 37 × 25 × 15 mm pair b. 50 × 25 × 15 mm pair c. 75 × 30 × 19 mm pair          Disposable Embedding Ring.          Or equivalent Warranty One Year</p>	04 Nos.																					
<b>Lab Equipment for Pharmacognosy Lab</b>																							
8	<p><b><u>Autoclave:</u></b></p> <table border="1" data-bbox="191 1003 756 1604"> <tr> <td><b>Chamber Dimensions Ø x L (mm)</b></td> <td><b>384 x 758</b></td> <td><b>384 x 758</b></td> </tr> <tr> <td><b>Chamber Volume (Liters)</b></td> <td><b>85L</b></td> <td><b>85L</b></td> </tr> <tr> <td><b>No. of Trays</b></td> <td><b>2</b></td> <td><b>2</b></td> </tr> <tr> <td><b>Tray Dimensions W x H x D (mm)</b></td> <td><b>Small: 286 x 25 x 675 Large: 350 x 25 x 675</b></td> <td><b>Small: 286 x 25 x 675 Large: 350 x 25 x 675</b></td> </tr> <tr> <td><b>Overall Dimensions W x H x D (mm)</b></td> <td><b>720 x 1365 x 1180</b></td> <td><b>720 x 1365 x 1180</b></td> </tr> <tr> <td><b>Autoclave Weight (kg)</b></td> <td><b>180 kg</b></td> <td><b>180 kg</b></td> </tr> </table> <p>Or equivalent</p>	<b>Chamber Dimensions Ø x L (mm)</b>	<b>384 x 758</b>	<b>384 x 758</b>	<b>Chamber Volume (Liters)</b>	<b>85L</b>	<b>85L</b>	<b>No. of Trays</b>	<b>2</b>	<b>2</b>	<b>Tray Dimensions W x H x D (mm)</b>	<b>Small: 286 x 25 x 675 Large: 350 x 25 x 675</b>	<b>Small: 286 x 25 x 675 Large: 350 x 25 x 675</b>	<b>Overall Dimensions W x H x D (mm)</b>	<b>720 x 1365 x 1180</b>	<b>720 x 1365 x 1180</b>	<b>Autoclave Weight (kg)</b>	<b>180 kg</b>	<b>180 kg</b>	02 Nos.			
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9	<p><b>Cool Incubator</b>  Temperature Display Resolution: 0.1°C  Temperature Stability: HIGH 0.3°C, LOW 0.5°C  Heating type: Stainless steel electric heater  Cooling type: Enclosed fluorine-free compressor, R134a refrigerant  Interior Dimension: 480*390*780 mm  Shelves: 2 PCS  Volume (L): 150 Liter  Timing Range: 1~9999min  Or equivalent  Warranty One Year</p>	01 No.			
10	<p><b>Laminar Air Flow Horizontal</b>  Air velocity: 0.25-0.45m/s(Adjustable)  Noise: ≤62dB(A)  Illuminance: ≥300Lx  Power Supply: AC220V,50Hz(Customized)  Rated power: 250~800W  Dimension: Customized Size/Standard Size  Material: Powder coated steel plate and SUS304 work table  Or equivalent Warranty One Year</p>	01 No.			
11	<p><b>Oven</b>  Dimensions (w x d x h cm):89.6 x 56.6 x 47.8  Rated voltage/Frequency (V~Hz):220-240</p> <ul style="list-style-type: none"> <li>• Input power (W):3050</li> <li>• Bottom Element Power (W):1750</li> <li>• Fan Element Power (W):2500</li> <li>• Grilling Power (W):2400</li> <li>• Lighting:1 x 25W Halogen</li> <li>• Main Oven Gross Capacity (L):84</li> <li>• Top Element Power (W):1200</li> <li>• Current (A):13.2</li> </ul> <p>Or equivalent Warranty One Year</p>	02 Nos.			
12	<p><b>Integrated Digital Microscope</b>  <b>Specification:</b>  Model B300e320 / B300e500 or equivalent  Digital Chip 3.2MP, 1/2 ", color CMOS  5MP, 1/2.5 ", color CMOS  Resolution 2048×1536 Pixels  (Maximum)  2952×1944 Pixels  (Maximum)  Frame Rate 15~30 fps  15~30 fps  C-mount 0.5×</p>	10 Nos.			



	Data Transmission USB2.0, Transmission rate: 480mps, external power supply is not necessary Operating System Available for Windows 2000 / XP / 7 Image Analysis Software Digital Image Analysis software for microscope Integrated body with digital head, dust-proof, moisture proof and anti-demolition Or equivalent Warranty One Year				
13	<b><u>Reciprocating Shaker</u></b> Capacity: 8pcs * 2L/pc Loaded Vessels: Separatory funnels / measuring cylinder Shake type: Vertical shaker Dimension: 535*475*690MM Weight: 45kg Function: oil and water separator Power supply: AC 220V / 50 HZ Operation: Automatic Or equivalent Warranty One Year	<b>01 No.</b>			
14	<b><u>Freezer</u></b> Cabinet temperature: 0-10/-5 -18 Power: 390w/490w Voltage: 220v/50hz Refrigerant: R134a/R404 Oem: yes Or equivalent Warranty One Year	<b>01 No.</b>			
<b>Lab Equipment Pharmacology/ Physiology Laboratory</b>					
15	<b><u>Tissue organ bath</u></b> <b>Manual, tank 5 Liters, Chambers 5 mL, Stainless steel or equivalent.</b>	<b>09 Nos.</b>			
16	<b><u>Kymograph</u></b> Aluminium, 230 V, 50 Hz, speed selection 1.00, 1.25 mm/sec	<b>09 Nos.</b>			
17	<b><u>Digital balance</u></b> Capacity: 220 gm. Readability: 0.1 mg Minimum Load: 10 mg, Minimum Sample WT as per USP: 200 mg, Operating temperature: 18°C to 30°C.				
18	<b><u>Oven</u></b> (170 L, natural convection, Temperature range 5°C above ambient up to +300°C. Temperature Percision: 0.1 Degree Temperature Fluctuation: ±0.5°C Timer Range: 1 ~ 9999 min Shelves: 2 <b>Or equivalent Warranty One Year</b>	<b>01 No.</b>			

19	<b><u>Burner</u></b> Bunsen burner or equivalent Nickel plated burner of brass 12 mm Brass tube 100 x 12 mm Base 70 mm diameter Overall Height 145 mm.	<b>15 Nos.</b>			
20	<b><u>E.S.R stand</u></b> JP Selecta (Spain) or equivalent Stainless steel, coated, 6 pipettes.	<b>10 Nos.</b>			
21	<b><u>Spiro Meter Plastic Body</u></b>	<b>02 Nos.</b>			
22	<b><u>Glass Test Tubes</u></b> Borosilicate test tubes 15-17 mm	<b>75 Nos.</b>			
23	<b><u>Test Tub stands</u></b> Aluminium or stainless steel test tube racks 40 holes for 15-17 mm tubes.	<b>13 Nos.</b>			
24	<b><u>Neubar Chamber 0.0025mm<sup>2</sup></u></b> Thick glass slide 30 x 70 x 4mm Or equivalent	<b>05 Nos.</b>			
25	<b><u>Meter Rod</u></b>	<b>10 Nos.</b>			
26	<b><u>Sphygmomanometer</u></b> Manual sphygmomanometer with Mercury.	<b>05 Nos.</b>			
27	<b><u>Stethoscope</u></b> Measuring tip: approx. 16.5 cm Earpieces made of soft plastic Total length: approx. 1 m Tight ear clips Or equivalent	<b>05 Nos.</b>			
28	<b><u>Wet Spiro meter</u></b> Portable, accuracy $\pm 3\%$ , temperature 0 to 40 °C.	<b>05 Nos.</b>			
29	<b><u>ECG machine</u></b> Digital 12 Channel ECG Input Way: Floating and defibrillation protection Lead: Standard 12 leads. Patient leak current $L < 10 \mu A$ Patient impedance: $> 50 M\Omega$ Frequency response: 0.05 Hz ~ 150 Hz (~3dB) Time constant: Time constant $> 3.2$ sec CMRR: $> 60dB$ , $> 100 dB$ (Adding filter) EMG interference filter: 35 Hz (-3dB) Or equivalent Warranty One Year	<b>01 No.</b>			

30	<b>Wattmann Filter paper or equivalent</b> Grade 1: 11 µm 460 mm x 570 mm sheets	<b>10 Packs</b>			
31	<b><u>Antiserum A B &amp; D</u></b> Monoclonal human IgM Or equivalent	<b>5 Complete Set</b>			
<b>Lab Equipment Pharmacology/ Physiology Laboratory</b>					
32	<b><u>Water Bath Single Hole</u></b> Dimension: 280×160×170 mm Temperature is controlled accurately automatically with digital display Temperature rang: RT-100 degrees Heating power: 300W Temperature precision: ≤ ±0.5 degrees, anti-cauterization Or equivalent Warranty One Year	<b>10 Nos.</b>			
33	<b><u>Triple Beam Balance</u></b> Stainless Steel Plate, 610g Capacity, 0.1g Readability	<b>05 Nos.</b>			
34	<b><u>Melting Point Appartus</u></b> Up to 300°C, Resolution 1°C, Programmable, Sample Capacity 3 Samples Automatic and visual determination, PID-controlled temperature ramping	<b>05 Nos.</b>			
35	<b><u>Spectrophotometer</u></b> Thermo Scientific GENESYS 10S UV-Vis or equivalent Spectrophotometer, Dual Beam, Single cell holder and automated 6-cell changer standard, Dual Silicon Photodiodes, Drift <0.0005A/hr, Graphical with LCD backlight Warranty One Year	<b>02 Nos.</b>			
36	<b><u>Digital Weight Balance</u></b> Digital display, measuring chamber size: 180*175*200 mm, Repeatability error (standard error) ±0.002 g, Spirit bubble in front, Multi-combination wind shield-5 pieces of glassess, transparent wighing chamber, Micro loads weigh display, Auto reset Or equivalent Warranty One Year	<b>02 Nos.</b>			
37	<b><u>Water Bath (Multiple Holes)</u></b> Stainless Steel Boiling bath 8.81 Litres (Approx), with simmer to boil control, Heat protection, Integral constant level device to regulate the level of water Or equivalent Warranty One Year	<b>06 Nos.</b>			

**Special Terms and conditions;**

1. Please quote the rates on our BoQs and clearly mention the quoted model / brands, otherwise your bid / items may be rejected.
2. Purchase / work order (s) will be awarded on **Item Wise Basis** as mentioned in BoQs.
3. In Addition to filling of the attached BoQs, supporting literature of the quoted 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 literature model. So the item/bid may be rejected.
4. Kindly attach the **Tender fee with Technical Bid** and **Bid money / CDR with Financial Bid.**
5. Please submit the technical and financial bid (s) on our prescribed BoQs and clearly mention the quoted model / brands, otherwise your bid (s) may be rejected and also attach the terms and conditions (signed, stamped) with both bids.
6. **Multiple rates of an item may also lead to the rejection of bid / item.**