

# **DR. PANJABRAO DESHMUKH KRISHI VIDYAPEETH, AKOLA**

*Approved rate list of Instruments & Machinery with their suppliers/ firms, valid up to 31.03.2019 by the central Purchase committee, Dr. PDKV, Akola.*

**Read:** 1) Univ. Order No. AD/UG/1658/2018, Office of the Associate Dean, College of Agriculture, dated 15/01/2018  
2) e-Tender No. GAD/STORE/CPC/17-18/3370, Dated: 29/01/18,

## **CIRCULAR**

**No.HDPP/CPC/RC/CPPO/TC (I & M)/816/2018,**

**Dated: 27.3.2018.**

Consequent upon the constitution of Central Purchase Committee for Akola zone vide University Order dated 15/01/2018, the Central Purchase Committee headed by Associate Dean, College of Agriculture, Akola undertook e-tender process for the Instruments & Machinery for various University departments. Considering the wide range of items, the committee confined tender procedure to the items of common requirement for the supply of Instruments & Machinery.

The rates offered by the suppliers are duly approved by the University on recommendation of the Central Purchase Committee, Dr. PDKV, Akola in r/o of the Instruments & Machinery as per list enclosed herewith, which are valid from the date of this circular up to 31.03.2019. Earlier circular in this regards stands cancelled from the date of this circular.

The concerned officers intending to purchase any of the Instruments & Machinery from the approved list, will have to follow purchase procedure as per the financial rules of the University & availability of fund.

The approved rates mentioned in the list are F.O.R. destination and inclusive of all taxes, as applicable. The concerned officers intending to purchase any the Instruments & Machinery should take security deposit @3% of total cost from the supplier as per rule and procedure. If the job is completed by the party satisfactorily then the amount of Security deposit there on will be returned after 12 months or the expiry of warrantee period whichever is later from the date of supply.

The Central Purchase Committee has already made an agreement with the suppliers for Instruments & Machinery those offers have been approved in tender process to supply the required material in the jurisdiction of University.

The purchaser must provide a copy of supply order to the Tender Coordinator (I & M), & Chief Plant Protection Officer, Department of Entomology, Dr. PDKV, Akola.


The surprise inspections will be carried out by the Chairman/Tender Coordinator to check quality, quantity and specification of the purchased material.

The details regarding specification should invariably be the mentioned in the supply order and the same should be entered in the bill, so that, responsibility of supplier can be fixed in respect of items supplied by them. The purchaser should check the Instruments & Machinery as per specifications at the time of putting supply order & delivery. The approved firms has to follow all the necessary procedures and as per instructions given in the E-tender notice before effecting the sale purchase of the Instruments and Machinery.

The approved list of suppliers for the supply of the Instruments & Machinery is available on University website [www.pdkv.ac.in](http://www.pdkv.ac.in).

The circular is issued with the concurrence of the Comptroller and approval of Hon'ble Vice Chancellor.

**Encls:** Approved list as above (Page 1 to 55)

  
**Chairman**  
**Central Purchase Committee &**  
**Associate Dean, Post Graduate Institute,**  
**Dr. PDKV, Akola**

**Copy submitted to:**


The Dean (Agri.), Dr. PDKV, Akola, for information.

**Copy f.w.c.s. to:**

1. The Controlling Officers (All)\_\_\_\_\_ Dr. PDKV, Akola.
2. The Registrar, Dr. PDKV, Akola, for information.
3. The Comptroller, Dr. PDKV, Akola, for information.
4. The T.S. to Vice Chancellor, Dr. PDKV, Akola for information of Hon'ble Vice Chancellor, Dr. PDKV, Akola.

**Copy for information and necessary action to:**

- 1) The Implementing Officers (All)\_\_\_\_\_
- 2) The Pay and Accounts officer, Akola/Nagpur.
- 3) The Tender Coordinator (I & M) and Chief Plant Protection Officer, Deptt. of Entomology, Dr. PDKV, Akola.
- 4) \_\_\_\_\_

  
**Chairman**  
**Central Purchase Committee &**  
**Associate Dean, PGI, Dr. PDKV,**  
**Akola.**





**Central Purchase Committee**  
**Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola.**

**Approved rate list of Instruments & Machinery with their suppliers/firms, (2017-18).**


Sr. No.	Item No.	Name of Instruments/ Machinery	Specifications	Approved Unit Rate including all Taxes applicable (Rs.)	Name of The Approved Firms
1	2	Small Autoclave,  Make: "Equitron" Small Autoclave Model No. : #7407ST	<ul style="list-style-type: none"> <li>Should be fully SS 304, seamless die pressed body and lid</li> <li>Should have easy twist and lock lid, automatic purging</li> <li>Should be supplied with dressing drum 270x220 mm and spare gasket</li> <li>Capacity should be more than 15 liters, inner chamber size 300x230 mm</li> </ul>	23700	Labline Instruments (India) Pvt Ltd, Agrawal Comlex rallies Plot, Near railway bridge, Amravati-444601. Mob. 9823072289
2	3	Gel Documentation System,  Make: VILBER Model No.: E-BOX-CX5.TS-26MX	<ul style="list-style-type: none"> <li>Gel documentation system for imaging DNA and RNA gels with in-built high contrast medical grade touch screen computer display with magnesium reinforced glass for robustness</li> <li>Should have motorized zoom lens with automatic control of the camera, lens and lighting for an unrivalled ease of use.</li> <li>Dark room with full slide out UV transilluminator on pull-out rails for comfortable work</li> <li>UV safety shutoff with widely accessible door to handling gels while placing or moving gels on transilluminator table</li> <li>Transilluminator should have Superbright technology so as to have publication quality gel image with no UV tube background noise</li> <li>Scientific grade, zero defect CX5 camera is must with native image resolution of 2600 (H) x 1950 (V) yielding image resolution of 5 megapixels extendable to 20 megapixels</li> <li>System should be capable of producing images of 16-bit – 65,536 grey levels</li> <li>USB 3.0 interface for faster image transfer</li> </ul>	669500.00	Eppendorf India Limited, 18, Waman Patil Industrial Estate, Waman Patil Marg, Opp. Dukes Factory, Chembur, Mumbai 4000071 Mob. 9372421680,

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			<ul style="list-style-type: none"> <li>Maximum field of view must be at least 26 x 21 cms</li> <li>System should have 4-position filter wheel with F-590 emission filter for ethidium bromide, SYBR Green, SYBR Gold, Gel Red, Gel Green, Lumitein, SYPRO Ruby, etc.</li> <li>System should have option for future upgrade for colorimetric gel imaging and for blue conversion screen</li> <li>System should be supplied with multi user licensed analysis software for image enhancement, image analysis includes molecular weight calculation, band quantification, distance calculation.</li> <li>Software should have Apps Studio, a complete library of applications to ensure reproducibility and ease of use.</li> <li>3D Dynamic Scan feature to understand saturation and to rule out artifacts is a must</li> <li>System should be supplied with necessary desktop computer system.</li> </ul>		
3	4	<b>PCR system with flexibility , PCR setup and post PCR analysis,</b>  <b>Make:PRIMA96</b> <b>Model No.LA949</b>	<ul style="list-style-type: none"> <li>PCR system with flexibility to use 0.1 mL / 0.2 mL / 0.5 mL PCR tubes / 96-well PCR plate in the same block with no requirement to swap or change the block.</li> <li>Preprogrammed PCR templates in addition to conventional protocol should include touchdown PCR, long range PCR, low volume PCR, nested PCR, Reverse transcription, etc.</li> <li>Peltier technology based heating and cooling with patented Triple Circuit Technology, to ensure precise control of temperature</li> <li>Temperature control range: from 4 °C to 99°C, with ramp rates of 3 °C/s (heating) &amp; 2 °C/s (cooling)</li> <li>Temperature Control Mode: Fast, Standard and Safe</li> <li>Lid Temperature range: 37 - 110 °C</li> <li>Block Temperature Accuracy: <math>\pm 0.2^{\circ}\text{C}</math></li> <li>Block Homogeneity: <math>\leq \pm 0.3^{\circ}\text{C}</math> (20° C to 72° C); <math>\leq \pm 0.4^{\circ}\text{C}</math> (95° C)</li> <li>Lid descent and closing pressure - Flexlid technology with Thermal sample Protection</li> <li>Intuitive Graphic programming with larger display</li> <li>Administrator and user login with or without PIN for enhanced security</li> </ul>	194700.00	<b>Himedia Laboratories Pvt Ltd., 23 Vadhani Industrial Estate, LBS Marg, Mumbai 400086</b>  <b>Mob. 022 61169797</b>


  
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			<ul style="list-style-type: none"> <li>• Booking schedule allow users to reserve the instrument in advance</li> <li>• Time or Temperature increment with cycles in PCR program</li> <li>• Adjustable ramp rate from 0.1° C to 3.0° C to meet critical amplification conditions</li> <li>• Customized programming allows a maximum of 20 steps and 99 cycles</li> <li>• Auto Restart facility with user defined time interval when power fails and resumes</li> <li>• Instrument status indicates the step, cycle and remaining runtime during the run</li> <li>• Runtime display shows remaining time in larger font for better view from distance</li> <li>• Two USB ports: for Protocol transfer, Self-test, USB, printer / mouse</li> <li>• Log book function for error messages and new calibration</li> <li>• E-mail Notification</li> <li>• Power save Standby function</li> <li>• Cooling vents at bottom and rear allow placing other instruments in limited bench space</li> <li>• Option to connect up to any of TWO Mastercycler nexus eco variants in future for ultimate throughput</li> <li>• Optional Self-test dongle to check functionality of all 6 peltier elements</li> <li>• Interface: USB, Ethernet, CAN in, CAN out</li> <li>• Calibration of PCR machine is to be according to NIST (USA), DKD/PTB (Germany) UKAS/NPL (UK), UL/cUL listed</li> <li>• Compact centrifuge with rotor to handle 1.5 mL tubes and adapters for 0.2 mL PCR tubes to use in the same rotor, which can go up to 13,400 rpm or 12,000 g.</li> <li>• Should include PCR reaction preparatory consumables such as 1.5 mL Safe-lock tubes and 0.2 mL PCR tubes</li> <li>• Should include pipette one each to handle volume ranges, 2 – 20 µL and 20 - 200µL along with appropriate &amp; compatible tips.</li> <li>• Supplied pipettes should have spring loaded tip cone technology for perfect fit of the tips to ensure volume accuracy even if used by different users</li> </ul>		
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			<ul style="list-style-type: none"> <li>• Should supply IsoTherm system to place 1.5 mL tubes and PCR cooler to hold 0.2 mL PCR tubes in order to prevent PCR reagents from temperature influence</li> <li>• Must provide compact electrophoresis unit along with power</li> <li>• Should supply UV-transilluminator for viewing agarose gel and a camera to capture the gel profile</li> <li>• Should supply reagents for 50 PCR reactions</li> </ul>		
4	5	<b>Gradient Thermal Cycler</b>  <b>Make: Thermo Fisher</b> <b>Model No.: Thermo Fisher Scientific.</b>	<ul style="list-style-type: none"> <li>• Maximum block ramp rate :4°C/sec</li> <li>• Maximum sample ramp rate :3°C/sec</li> <li>• Temperature accuracy :±0.25°C (35 to 99.9°C)</li> <li>• Temperature range for protocol run :0°C to 100.0°C</li> <li>• Temperature non-uniformity :&lt;0.5°C</li> <li>• Dimensions Height: 21 cm (8.27 in) Width: 24.0 cm (9.45 in) Depth: 46 cm (18.11 in)</li> <li>• Weight 8.5 kg (18.3 lb)</li> <li>• PCR volume range • Supported: 10 - 100 µL</li> <li>• Settable: 1 - 100 µL</li> <li>• Instrument memory USB, on-board</li> <li>• Display interface: 8" color TFT LCD</li> <li>• Power :100-240 V, 50-60 Hz Max: 600 W</li> <li>• VeriFlex™ blocks • 3 VeriFlex™ zones with better than gradient feature</li> <li>• Supported 10°C (5°C zone-to-zone)</li> <li>• Settable :20°C (10°C zone-to-zone)</li> <li>• Simulation mode availability to replicate other PCR brand thermal and ramping conditions.</li> <li>• Ambient humidity 15% - 80% Relative Humidity, non-condensing (acceptable range) with Preloaded Protocols</li> </ul>	208000.00	MDS Bio Analytics Private Limited 1st Floor, Sakar Enclave, Plot No. 127, Shankar Nagar, Nagpur: 440010 (M.S.) India. Ph: 6617143
5	6	<b>UV-VIS Double Beam Spectrophotometer,</b>	<ul style="list-style-type: none"> <li>• Photometric System Double beam optics</li> <li>• Spectral Band pass width &lt; 1.0nm</li> <li>• Wavelength Range 190nm to 1100nm</li> </ul>	400000.00	BIOERA LIFE SCIENCES PVT LTD BIOERA PARK,

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		<b>Make: BioEra Life Science PVT. LTD. Pune.</b> <b>Model: Elite</b>	<ul style="list-style-type: none"> <li>Wavelength Accuracy <math>&lt; \pm 0.3\text{nm}</math></li> <li>Wavelength Reproducibility <math>&lt; \pm 0.1\text{nm}</math></li> <li>Wavelength Setting <math>0.1\text{nm}</math></li> <li>Wavelength Scanning Speed <math>\text{Max.} 3000\text{nm/min}</math></li> <li>Photometric Range <math>-0.5</math> to <math>4.0\text{ABS}</math></li> <li>Photometric Accuracy <math>\pm 0.004\text{ABS}</math> (at <math>1.0\text{ABS}</math>)</li> <li>Photometric Reproducibility <math>\pm 0.002\text{ABS}</math></li> <li>Baseline Flatness <math>&lt; \pm 0.001\text{ABS}</math> (<math>200\text{nm}</math> to <math>1100\text{nm}</math>)</li> <li>Noise Level <math>&lt; 0.001\text{A}</math></li> <li>Stability <math>\pm 0.002 \text{ A/hr}</math></li> <li>Light Source Tungsten-halogen lamp and/or deuterium lamp</li> <li>Lamp Change Wavelength <math>340\text{nm}</math> to <math>410\text{nm}</math> (default <math>370\text{nm}</math>) include auto position system</li> <li>Monochrome Modified czemy-tuner type with <math>1200</math> lines/mm blazed grating</li> <li>Detector Silicone photodiode</li> <li>Power requirement AC <math>220\text{V}</math>, <math>50/60\text{Hz}</math></li> </ul>		<b>SURVEY NO. 125,</b> <b>MUMBAI-BANGALORE</b> <b>HIGHWAY,</b> <b>TATHAWADE, PUNE</b> <b>411033, MOB.+91</b> <b>9822773256</b>
6	7	<b>UV Vis Spectrophotometer Single Beam</b>  <b>Make : LABMAN</b> <b>Model :LMSP-UV-1000B</b>	<ul style="list-style-type: none"> <li>Optics:-Complete mirror optics with, <math>1200</math> grooves/mm, Grating Czerny turner mount</li> <li>Wavelength Range – <math>200</math> to <math>1000\text{nm}</math></li> <li>Readout – electronic digital counter <math>0.1\text{nm}</math> increments</li> <li>Accuracy - <math>\pm 1\text{nm}</math></li> <li>Repeatability – <math>0.5\text{nm}</math></li> <li>Bandwidth – <math>2\text{nm}</math> (constant throughout the spectral range)</li> <li>Photometric Range : <math>0.2</math> to <math>2.000 \text{ Abs.}</math> <math>0-1999</math> concentration unit <math>0-100\% \text{ T}</math></li> <li>Accuracy : <math>\pm 0.005 \text{ Abs}</math> at <math>1 \text{ Abs}</math></li> <li>Repeatability : <math>\pm 0.002 \text{ Abs}</math> at <math>1 \text{ Abs}</math></li> <li>Stray Light:- Less than <math>0.1\% \text{ T}</math> at <math>220\text{nm}</math> and <math>370\text{nm}</math></li> <li>Source:- Tungsten-Halogen lamp/ Deuterium lamp,</li> <li>Detector:-Wide range, Solid state silicon Photodiode</li> <li>Filters :-Built – in filter wheel with four filters</li> </ul>	82010.00	<b>Sharp Control Equipment</b> <b>Pvt. Ltd, 101 &amp; 103,</b> <b>Bothra complex, 1<sup>st</sup> floor,</b> <b>Model Mills square,</b> <b>Ganeshpeth, Nagpur</b> <b>440018 Mob. 9372337331</b>


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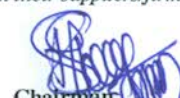
  
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			<ul style="list-style-type: none"> <li>Sample holder :- Manual 4-positioning sample changer for 10mm cuvettes cells</li> <li>Power :-230V = 10%, 50Hz, 200VA</li> <li>Accessories :- Two Matched 10mm path length Quartz cuvettes</li> </ul>		
7	8	<b>pH Meter</b>  <b>PICO+ Labindia</b> <b>Analytical (West), Thane-</b> <b>444602</b>	<ul style="list-style-type: none"> <li>Benchtop meter with pH/mV module and stand</li> <li>Includes pH module, electrode stand, universal power adapter, literature CD, printed quick start guide, computer interface cable and meter test certificate</li> <li>Range (pH) -2.000 to 20.000pH</li> <li>Resolution (pH) 0.1, 0.01, 0.001pH</li> <li>Accuracy (pH) <math>\pm 0.002</math>pH</li> <li>Range (mV) <math>\pm 2000.0</math>mV</li> <li>Range (Relative mV) <math>\pm 2000.0</math>mV</li> <li>Range (ORP) <math>\pm 2000.0</math>mV</li> <li>Resolution (mV) 0.1mV</li> <li>Accuracy (mV) <math>\pm 0.2</math> mV or <math>\pm 0.05\%</math> of reading whichever is greater</li> <li>Calibration pH with calibration editing option, relative mV (RmV), ORP and temperature</li> <li>Calibration Points (pH) 1 to 6</li> <li>Calibration Points 1 point relative mV (RmV) mode, 1 point ORP mode</li> <li>Isopotential Point 7.000pH (adjustable)</li> <li>Range (Temperature) -5.0° to 105.0° C, 22.0° to 221.0° F</li> <li>Resolution (Temperature) 0.1°C, 0.1°F</li> <li>Accuracy (Temperature) <math>\pm 0.1</math>°C</li> <li>Temperature Selection- Manual or automatic with ATC temperature probe</li> <li>Temperature Probe Calibration- 1 point temperature offset calibration</li> <li>Channels- 4 - customizable with modules</li> <li>Display Type - Color graphic LCD with user-customizable options</li> <li>Backlight Option</li> </ul>	62775.00	<b>Labline Instruments (India)</b> <b>Pvt Ltd, Agrawal Comlex</b> <b>rallies Plot, Near railway</b> <b>bridge, Amravati-444601.</b> <b>Mob. 9823072289</b>

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			<ul style="list-style-type: none"> <li>Keypad- Numeric with menu-specific function keys and dual purpose scroll/shortcut keys</li> <li>Measurement Modes- pH, mV, relative mV (RmV) or ORP with temperature</li> <li>Stability- Selectable fast, medium, slow or Smart Stability setting; Selectable off or Automatic Smart averaging setting</li> <li>Transfer single, range or all data points to printer or computer</li> <li>Automatic data logging with Auto-Read, Timed and Single Shot</li> </ul>		
8	9	<b>Binocular Microscope</b>  <b>Make: MICO</b> <b>Model: CMARM.Sb</b>	<ul style="list-style-type: none"> <li>Ergonomically designed rugged stand for longtime comfortable usage.</li> <li>Carrying handle should be built-into the stand.</li> <li>Microscope should be with infinity optics with anti-fungus treatment.</li> <li>Built-in Transmitted light illumination with 6V 30W halogen lamp with easy lamp changing module and should have provision to replace the same with white light long lasting LED illumination by the user.</li> <li>External main power supply with electronic main control from 110V to 240V.</li> <li>Back tilted Quadruple revolving nosepiece with precision click stops confirming paracentric field of view for all objectives.</li> <li>ABBE Condenser with numerical aperture 1.25 with built-in aperture diaphragm.</li> <li>Slide Stage should have ball bearing specimen holder and should have right handed coaxial X and Y movement.</li> <li>The travelling range of the stage should be 75 x 30mm with vernier marking.</li> <li>The stage focus movement range should be 15mm or more with coaxial coarse and fine focus knobs on either side of the stand.</li> <li>The minimum step size of the fine focus should be 2 micron or better.</li> <li>Focus stop mechanism to protect slide damage should be available.</li> <li>Inclined Binocular tube with 30deg swiveling eyepiece tube and adjustable viewing height of atleast 40mm (Siedentopf tube, viewing heights 385 to 425mm).</li> </ul>	56400.00	<b>The Micro Instrument Company 9/5,Durga Nagar, Ambala Cantt-133001,Haryana Ph. No: +91-171-2650273</b>


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			<ul style="list-style-type: none"> <li>• Interpupillary distance should be variable between 50 mm to 75mm or better.</li> <li>• Binocular tube should be fully made of metallic and should not have any plastic covers.</li> <li>• Paired Eyepieces with 10x magnification, field of view 18mm and should be suitable for spectacle wearers.</li> <li>• Both eyepieces should be with front focusable eye lenses with +5 dioptr correction.</li> <li>• High contrast Fully Plan Achromatic objectives, 4x/0.10, 10x/0.25, 40x/0.65 and 100x/1.25 oil. 40x and 100x front optics are spring loaded.</li> <li>• All the objectives should be of parafocal corrected for easy specimen focusing in various magnifications.</li> <li>• Microscope should be upgradeable for Dark field, Phase contrast and incident light LED fluorescence techniques</li> <li>• Microscope should include daylight and green filters, immersion oil and dust cover.</li> <li>•</li> </ul>		
9	12	<b>Hot Air Oven</b>  <b>Make: SPIRE</b> <b>Model :SAII-HA0-30C</b>	<ul style="list-style-type: none"> <li>• Glass window in – built into the door</li> <li>• Forced convection design ensures a high level of control accuracy and uniformity.</li> <li>• Automatic cut off of heater &amp; blower when door opened.</li> <li>• Digital PID temperature controller with timer, alarms and auto tuning.</li> <li>• Non contact type door switch.</li> <li>• Aero dynamic internal design for achieving horizontal air circulation.</li> <li>• Solid and plain bottom without electrical.</li> <li>• Seamless round cornered edge of internal chamber ensures easy cleaning &amp; prevents any leakage.</li> <li>• Supplied with stainless steel wire mesh shelves. Shelf height adjustable in 25mm steps.</li> <li>• Temp range : +50<sup>0</sup>C to 200<sup>0</sup>C</li> <li>• Control Accuracy : +/-0.2<sup>0</sup>C</li> <li>• CE certified</li> </ul>	103840.00	<b>Spire automation and innovation india 71,B-28, Rajsagar, Kirti Nagar, New Sangvi, Pune, 411061 Mob. 9975777088</b>

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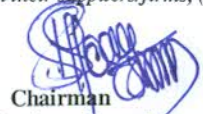
  
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			<ul style="list-style-type: none"> <li>Capacity : 180 Lit</li> <li>Shelves : 3</li> </ul>		
10	13	<b>Bacteriological Incubator</b>  Make : Equitron Model: #7251-091	<ul style="list-style-type: none"> <li>Digital PID temperature controller with timer, Alarm &amp; auto tuning.</li> <li>Controller: Digital PID Control</li> <li>Over temperature safety protection.</li> <li>Internal Circulating fan for better control</li> <li>Internal chamber of SS, Outer MS- Epoxy Coated</li> <li>Round cornered chamber</li> <li>Transparent tempered safety inner glass door</li> <li>Shelf height adjustable in 25mm increments</li> <li>Seamless round cornered edge of internal chamber ensures easy cleaning &amp; prevents any leakage.</li> <li>Temp range: Ambient + 5°C to 70°C</li> <li>Accuracy: ±0.2°C</li> <li>Capacity : 90 lit</li> </ul>	75578.00	Instrulab India Deshna Nagar, Behind Raj Plaza Market, Near Ambika Nagar, Amaravati 444606 Mob. 9823056590
11	14	<b>Ice Flaking Machine</b>  Make: LABMAN Model : LMIF-30	<ul style="list-style-type: none"> <li>Capacity – 30kg/24hrs.</li> <li>CFC free refrigeration.</li> <li>Stainless steel construction.</li> <li>Continuous Ice Flakes output.</li> <li>Fully automatic microprocessor control.</li> <li>Noiseless operation.</li> <li>Overload protection.</li> <li>Low water level indication.</li> </ul>	77762.00	Sharp Control Equipment Pvt. Ltd, 101 & 103, Bothra complex, 1 <sup>st</sup> floor, Model Mills square, Ganeshpeth, Nagpur 440018 Mob. 9372337331
12	15	<b>Analytical Balance</b>  Make: ACZET Model : CY-224C	<ul style="list-style-type: none"> <li>India Factory verification</li> <li>Draft shield – Manual</li> <li>Leveling – Manual</li> <li>Colored Touchscreen Display</li> <li>Adjustment With External Weights</li> <li>Weighing capacity - 220 g</li> <li>Repeatability - 0.1 mg</li> <li>Readability - 0.1 mg</li> </ul>	96052.00	HBS Technologies C/o Hiralal Gour, 469/C, B/H Ranjan Bichayat Kendra, Dhondba Chowk, Hansapuri, Nagpur-440018. M. : 09822569928,


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			<ul style="list-style-type: none"> <li>Standard laboratory applications – Weighing, Density, Percentage, Check Weighing, Peak Hold, Counting, Unstable Conditions, Animal Weighing</li> <li>Weighing units - g, ct, mom, kg, lb, oz, ozt, tlh, tls, tlt, GN, dwt, mg, parts   lb, tlc, Kt, tol, bat, MS, N</li> <li>Glass parts of the draft shield are coated to reduce electrostatic influences, In-use cover, Dust cover for balances with draft shield</li> <li>Direct transfer to Windows applications</li> <li>Programmable interval for data output</li> <li>Data transfer protocols SBI - table format - text format</li> <li>Mini USB Interface</li> <li>Typical stabilization time 2s</li> </ul>		
13	16	<b>Centrifuge (Refrigerated)</b>  <b>Make : Ependrof</b> <b>Model: 5430R</b>	<ul style="list-style-type: none"> <li>Maximum Speed of 30,130 x g /17500 rpm, with a brushless motor</li> <li>Temperature range should be from -11°C to 40°C, should be able to maintain 4°C at maximum Speed.</li> <li>It should be possible to use aerosol tight rotor.</li> <li>Instrument should be able to accommodate 48 number of 1.5/2ml tubes.</li> <li>Instrument should have an in-built condensate drain to prevent water accumulation.</li> <li>It should be possible to perform a fast pre-cooling of the instrument using a dedicated Fast Temp function.</li> <li>It should be possible to program fast cooling with preset date and time.</li> <li>It should be possible to store 50 programs with 5 quick access program keys.</li> <li>Speed setting should be possible in both rpm and rcf.</li> <li>Should possess a separate short spin key for brief spin.</li> <li>It should be possible to program compressor shut off after 8 hrs of non usage of the centrifuge.</li> <li>Should have the flexibility to accommodate rotors for different formats of tubes starting from 0.2ml PCR tubes up to spin column tubes.</li> <li>Instrument should have a dedicated rotor for 5 ml tubes to</li> </ul>	823557.00	<b>Eppendorf India Limited,</b> <b>18, Waman Patil Industrial</b> <b>Estate, Waman Patil Marg,</b> <b>Opp. Dukes Factory,</b> <b>Chembur, Mumbai</b> <b>4000071 Mob. 9372421680</b>


  
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			<ul style="list-style-type: none"> <li>accommodate 5ml conical tubes.</li> <li>5ml conical tubes should also be supplied.</li> <li>Instrument should have dedicated rotors for 15/50ml Conical tubes and Micro titer plates.</li> <li>Instrument should have automatic rotor recognition facility to automatically recognize and set maximum speeds upon rotor change.</li> <li>Rotor lids should have a QuickLock-system for secure lid closing and opening.</li> <li>It should be possible to operate the centrifuge at set rpm, for short spin protocols.</li> </ul>		
14	17	<b>Refrigerated Incubator Shaker</b>  <b>Make: ELTEK India</b> <b>Model: ESI-125R</b>	<ul style="list-style-type: none"> <li>Temperature range: +5 deg to 60 Deg.</li> <li>Volume : up to 80 L.</li> <li>Temperature accuracy: +/- 0.1 @ 38 deg.</li> <li>Uniformity: +/- 0.1 @ 38 deg.</li> <li>Motion type: Orbital or Reciprocating type (selectable).</li> <li>Frequency: 10 – 300 rpm.</li> <li>Timer: 10 sec – 999 Hr 59 min 59 Sec.</li> <li>Microprocessor based PID control/ Auto tuning / Calibration.</li> <li>Over temperature limiter / Door opening alarm.</li> <li>Digital LED display for temperature (0.1 Deg Resolution) Speed, and shaking motion.</li> <li>Brush less DC motor.</li> <li>High velocity fan for rapid thermal recovery and uniformity.</li> <li>Safety features: <ul style="list-style-type: none"> <li>1. Self protecting cut off indication.</li> <li>2. System should have logical safety feature.</li> <li>3. Time setting function for automated run/off.</li> <li>4. Door opening alarm.</li> </ul> </li> <li>Electrical requirements: 230 V, 50/60 Hz.</li> <li>Accessories: <ul style="list-style-type: none"> <li>1. Platform for incubator shaker.</li> <li>2. Spring wire Rack</li> <li>3. Rubber mat and sticky pad</li> <li>4. With calmps for 1000ml, 500ml, 250 ml conical flask.</li> </ul> </li> </ul>	282020.00	HBS Technologies C/o Hiralal Gour, 469/C, B/H Ranjan Bichayat Kendra, Dhondba Chowk, Hansapuri, Nagpur-440018. M. : 09822569928,


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15	22	<b>Water purification system</b>  <b>Make: Bio-Age</b> <b>Model : Lab Pure Series</b> <b>Dura Pure Classic-5</b>	<ul style="list-style-type: none"> <li>• Tap to ultra pure water system – UV/UF minimum 3 LPH.</li> </ul>	403000.00	<b>Labline Instruments (India)</b> <b>Pvt Ltd, Agrawal Comlex</b> <b>rallies Plot, Near railway</b> <b>bridge, Amravati-444601.</b> <b>Mob. 9823072289</b>
			<ul style="list-style-type: none"> <li>• Three stage pretreatment system with 10, 5 and 1 micron spun filters with activated carbon prefilter 5 micron.</li> </ul>		
			<ul style="list-style-type: none"> <li>• Should produce pure and ultra pure water from tap water for analytical applications.</li> </ul>		
			<ul style="list-style-type: none"> <li>• Should be able to dispense Type I water from tap and Type II water from tank.</li> </ul>		
			<ul style="list-style-type: none"> <li>• It should be single stage system to produce bacteria free ultrapure water.</li> </ul>		
			<ul style="list-style-type: none"> <li>• Should have RO, DI, UV and Ultra filter in single unit.</li> </ul>		
			<ul style="list-style-type: none"> <li>• It should have a integrated 6L polyethylene food grade, opaque conical bottom tank with sterile vent filter to prevent contamination by microorganisms in the environment.</li> </ul>		
			<ul style="list-style-type: none"> <li>• It should have recirculation facility to maintain consistent peak water purity.</li> </ul>		
			<ul style="list-style-type: none"> <li>• It should have cartridge change indicator.</li> </ul>		
			<ul style="list-style-type: none"> <li>• The production rate of the unit should be 3 L/Hr and should have provision for upgradation to higher volumes.</li> </ul>		
			<ul style="list-style-type: none"> <li>• The dispense rate should be 1 L/min.</li> </ul>		
			<ul style="list-style-type: none"> <li>• Output water quality should be:</li> </ul>		
			<ul style="list-style-type: none"> <li>• Flow rate – 3 Ltrs./Hr. @ 250C</li> </ul>		
			<ul style="list-style-type: none"> <li>• Dispensing rate – 1.0 L/min.</li> </ul>		
			<ul style="list-style-type: none"> <li>• Type 1 water quality – 18.2 MΩ – cm @ 250C</li> </ul>		
			<ul style="list-style-type: none"> <li>• Type 2 water quality – 10 – 15 MΩ – cm @ 250C</li> </ul>		
			<ul style="list-style-type: none"> <li>• TOC – 1-5 ppb</li> </ul>		
			<ul style="list-style-type: none"> <li>• Bacteria - &lt; 1 CFU/ml</li> </ul>		
			<ul style="list-style-type: none"> <li>• Endotoxin - &lt; 0.005 EU/ml.</li> </ul>		
			<ul style="list-style-type: none"> <li>• pH – Effectively neutral.</li> </ul>		
16	23	<b>Culture racks for tissue culture</b>  <b>Make: Reschscholar</b>	<ul style="list-style-type: none"> <li>• Executive: For producing Circadian rhythms tissue culture, biotechnology &amp; allied works, with latest Electronic Ballast to produce excellent simulated natural light.</li> </ul>	43000.00	<b>Instrulab India Deshna</b> <b>Nagar, Behind Raj Plaza</b> <b>Market, Near Ambika</b> <b>Nagar, Amaravati 444606</b>
			<ul style="list-style-type: none"> <li>• Size of Racks: Height of rack 152 cm (5'). Width 127cm (4'.2")</li> </ul>		
			<ul style="list-style-type: none"> <li>• Shelf dimension: 122 × 45 cm (50"×18")</li> </ul>		
			<ul style="list-style-type: none"> <li>• Shelf to shelf distance: 35 cm (15")</li> </ul>		

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			<ul style="list-style-type: none"> <li>Shelf Color: Square M.S. pipe white shade powder coating finish with anti-corrosive and humidity resistant.</li> <li>Shelf Material: 3mm Hylem sheet.</li> <li>Shelves: illuminated shelves in one rack are: 04nos.</li> <li>Total no. of shelves (including top) in one rack: 05 nos.</li> <li>Fluorescent Tube lights: Four 40W tube lights (Philips) in each shelf of each rack, with 2 nos. of electronic ballast chokes; one is for operating two tubes. Total no. of tube lights in one rack: 16 nos. with electronic ballasts = 8 nos.</li> <li>One mains switch for each castor rack.</li> <li>One separate switch is provided for every 2 tubes.</li> <li>One fuse for one rack.</li> <li>Four castor wheels in a rack for easy movability.</li> <li>Timer for each rack.</li> <li>Side holder rods, on each shelf prevent the bottles etc. from falling from the three sides of a shelf, i.e. On the left, back &amp; right.</li> <li>Front side is used for keeping or removing the bottles etc.</li> </ul>		Mob. 9823056590
17	24	Air curtain (4 feet) Make: Reschlolar	<ul style="list-style-type: none"> <li>Should be operating on single phase.</li> <li>Should be universal models.</li> <li>Size should be available in 4 feet.</li> <li>Material construction should be M.S. CRCA / S.S 304.</li> </ul>	16000.00	Instrulab India Deshna Nagar, Behind Raj Plaza Market, Near Ambika Nagar, Amaravati 444606 Mob. 9823056590
18	25	Air curtain (6 feet) Make: Reschlolar	<ul style="list-style-type: none"> <li>Should be operating on single phase.</li> <li>Should be universal models.</li> <li>Size should be available in 6 feet.</li> <li>Material construction should be M.S. CRCA / S.S 304.</li> </ul>	26000.00	Instrulab India Deshna Nagar, Behind Raj Plaza Market, Near Ambika Nagar, Amaravati 444606 Mob. 9823056590
19	26	BOD Incubator Make: SPIRE Model : SAII-BOD-340	<ul style="list-style-type: none"> <li>The construction should be double walled with PUF insulation provided with door having locking arrangement and inner glass door.</li> <li>Temperature range : 5.0 °C to 60.0 °C.</li> <li>Temperature resolution: 0.1 °C Temperature accuracy <math>\pm 0.2^{\circ}</math> C.</li> <li>Temperature uniformity: <math>\pm 1^{\circ}</math> C.</li> </ul>	177000.00	Spire automation and innovation india 71,B-28, Rajsagar, Kirti Nagar, New Sangvi, Pune, 411061 Mob. 9975777088


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			<ul style="list-style-type: none"> <li>• Temperature Control : Microprocessor based PID Control. With Auto Tune CE Marked.</li> <li>• Temperature sensor accuracy : <math>\pm 0.25^{\circ}\text{C}</math>.</li> <li>• Temperature Display : Digital LED <math>3\frac{1}{2}</math> digit.</li> <li>• Air circulation : Flange motor with impeller / blower.</li> <li>• Heating : 'U' Shaped Nichrome Wire heater in SS Sheathing.</li> <li>• Cooling: CFC Free Copeland Make compressor utilizing R 134A eco friendly refrigerant, with condenser, motor, relay complete unit Copeland Make.</li> <li>• Chamber illumination: Fluorescent light with door switch.</li> <li>• Feet : Castor wheels.</li> <li>• Trays : SS wire mesh heavy duty.</li> <li>• Electrical: 230V / 15A / 50 Hz.</li> <li>• Volume more than 300 Liters.</li> </ul>		
20	27	<b>Orbital Shaking Incubator</b>  <b>Make : SPIRE</b> <b>Model : SAIL-OIS-9CC</b>	<ul style="list-style-type: none"> <li>• Temperature range: <math>+5^{\circ}\text{deg}</math> to <math>60^{\circ}\text{deg}</math></li> <li>• Volume : min 80 LTS</li> <li>• Temperature accuracy: <math>\pm 0.1</math> @ <math>38^{\circ}\text{deg}</math></li> <li>• Uniformity: <math>\pm 0.1</math> @ <math>38^{\circ}\text{deg}</math></li> <li>• Motion type: Orbital or Reciprocating type (selectable)</li> <li>• Frequency: 10 – 300 rpm</li> <li>• Timer: 10 sec – 999 Hr 59 min 59 Sec</li> <li>• Microprocessor based PID control/ Auto tuning / Calibration</li> <li>• Over temperature limiter / Door opening alarm</li> <li>• Digital LED display for temperature (0.1 Deg Resolution) Speed, and shaking motion.</li> <li>• Adjustable fan speeds.</li> <li>• Brush less DC motor</li> <li>• High velocity fan for rapid thermal recovery and uniformity.</li> <li>• Safety features:               <ol style="list-style-type: none"> <li>1. Self protecting cut off indication</li> <li>2. System should have logical safety feature</li> <li>3. Time setting function for automated run/off</li> <li>4. Door opening alarm</li> </ol> </li> </ul>	207680.00	Spire automation and innovation india 71,B-28, Rajsagar, Kirti Nagar, New Sangvi, Pune, 411061 Mob. 9975777088

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			<ul style="list-style-type: none"> <li>Electrical requirements: 230 V, 50/60 Hz.</li> <li>Accessories: <ol style="list-style-type: none"> <li>Platform for incubator shaker</li> <li>Spring wire Rack</li> <li>Rubber mat and sticky pad</li> <li>With calmps for 1000ml, 500ml, 250 ml conical flask.</li> </ol> </li> </ul>		
21	30	<b>-80° C Deep Freeze</b> <b>Along with CO<sub>2</sub> module</b>  <b>Make: Premium</b> <b>Model: U410</b>	<ul style="list-style-type: none"> <li>Upright ultra-low freezer should be of 400 Liters capacity.</li> <li>System should have operating temperature from -50°C up to -86°C with 1°C increment .</li> <li>System must be fully functional in operating temperature range (ambient Temperature) from 10°C up to 32°C.</li> <li>Fully programmable microprocessor controlled with membrane keypad and eye level control panel.</li> <li>Construction should be of Polyurethane foam (130mm thick) insulation.</li> <li>Inner door should have silicone seal to prevent temperature loss and Outer door should have safe silicone triple point seal.</li> <li>Freezer should have 5 Compartment with five inner doors.</li> <li>Freezers should have heated air vent and front panel air filter.</li> <li>Should have security keyed locks on the outer doors and lids keep out unauthorized users.</li> <li>Audible and visible alarms for temperature, power failure, system failure, battery low etc. and it also have remote alarm port for connection to an auto dialer.</li> <li>Freezer must use CFC-FREE, HCFC-FREE nonflammable refrigerants, and refrigeration system must be energy efficient and hermetically sealed two stage cascade refrigeration system.</li> <li>Compressor should be capable to run any voltage between 190 – 270V.</li> <li>Freezer must have ISO 9001 standard quality test requirements and IEC 61010 Electrical safety CE &amp; UL certified.</li> <li>Freezer should have efficient power consumption in the range of 10 to 11 kWh/day.</li> <li>Freezer should have electric supply of 230v/50hz, 10 amps.</li> <li>Freezer should be supplied with 5KVA voltage stabilizer.</li> </ul>	600000.00	<b>Eppendorf India Limited,</b> <b>18, Waman Patil Industrial</b> <b>Estate, Waman Patil Marg,</b> <b>Opp. Dukes Factory,</b> <b>Chembur, Mumbai</b> <b>4000071 Mob. 9372421680</b>

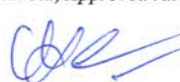
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			<ul style="list-style-type: none"> <li>Module for attachment of CO2 cylinder to minus 80 degree celcius freeze to keep it cool during power failure along with regulator</li> </ul>		
22	40	<b>Laminar Air Flow with sterilizer</b>  <b>Make: Reschlolar</b>	<ul style="list-style-type: none"> <li>Filters: Aluminum framed High Efficiency Particulate Air (HEPA) filter, with a minimum efficiency of 99.99% at 0.3 micron.</li> <li>Pre filter: Washable type Pleated pre-filter FRP Body frame PU coated</li> <li>Construction should be of GI Powder coater or SS with SS working top</li> <li>Air flow: 90 FPM (0.45 m/s) +/- 10 FPM (0.05 m/s) average velocity measured 6 in (152.4 mm) from the diffuser screen, uniformity +/- 20% of average or better</li> <li>Noise Level: &lt; 65 DB measured at 1 mtr from filter face</li> <li>Work Area – 4' x 2'</li> <li>Voltage: 230V, 50Hz</li> <li>Power Consumption: 300 Watts</li> <li>Fluorescent Lights: 2 x 40 Watts</li> <li>Ultra Violet Lights: 18 Watts</li> <li>Power socket: 5 A</li> <li><b>Should be with glass bed Sterilizer</b></li> <li>Material of construction should SS 304, at least 1 mm thick</li> <li>Crucible size should be 150 x 50 mm</li> <li>Crucible should be 16 gauge brass tube</li> <li>Main body should be mirror finished</li> <li>Controller should be electronic</li> </ul>	119000.00	<b>Instrulab India Deshna Nagar, Behind Raj Plaza Market, Near Ambika Nagar, Amaravati 444606</b> <b>Mob. 9823056590</b>
23	41	<b>2 D Electrophoresis System with Power Pack</b>  <b>Make: "Genaxy-Hoefer"</b> <b>Model : IER-100/SE600X-15-1.5/PS300B</b> <b>CAT.560003</b>	<ul style="list-style-type: none"> <li>Isoelectric Focusing (IEF) Unit, with built-in 12,000 Volt / 1.5mA power supply and Peltier thermostate cooling plate for excellent heat transfer and electrode contact.</li> <li>The instrument should be programmable and have RS 232C/USB interface for PC control inclusive of cable.</li> <li>The working temperature of the instrument should be 18 – 25°C (+/- 1°C).</li> <li>Flexible first-dimension IEF can be run Six strips up to 24 cm IPG, If 7 cm strips are used 12 strips can be accommodated with the help of another pair of electrodes.</li> </ul>	1048397.00	<b>Labline Instruments (India) Pvt Ltd, Agrawal Complex rallies Plot, Near railway bridge, Amravati-444601.</b> <b>Mob. 9823072289</b>

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			<ul style="list-style-type: none"> <li>• Monitoring of individual strips should be available.</li> <li>• Reusable Sample cup capacity should be upto 240 uLs.</li> <li>• Electrodes lock into place on strips ensures good contact during run.</li> <li>• Entire protocol can be seen on screen easy to read and edit.</li> <li>• Stores multiple protocols each with multiple steps-flexible programming for precise results.</li> <li>• Instrument should be controlled through LAN remote control and data acquisition possible.</li> <li>• Dimensions not more than 38 x 19 x 27 cm (w x h x d)</li> <li>• The unit will run one or two gels and has the capability of expanding to four gels with the addition of accessory divider plates.</li> <li>• The unit includes a dual gel caster.</li> <li>• The unit is having a round contour which allows easy handling, lifting and introducing samples.</li> <li>• Gels can be cast leak-free in the dual gel caster without using tape or agarose.</li> <li>• The unit has a 16 cm separation distance.</li> <li>• The unit should come with the glass plates, spacers 1.5mm &amp; 15 wells comb.</li> <li>• The gel plates are submerged in the lower buffer chamber so both surfaces of each gel are identically cooled (or heated). The buffer can be temperature-controlled via a glass tube heat exchanger.</li> <li>• The unit has a safety lid designed to CE, CSA and UL specifications.</li> <li>• When doing 2-D electrophoresis, the gels accept 11 cm or 13 cm Immobiline DryStrips that were run in the 1<sup>st</sup> dimension.</li> <li>• Power Supply – The unit is capable of delivering up to 300 volts, 400 mA and 90 watts.</li> <li>• The unit is able to operate in either constant voltage or current modes.</li> <li>• The unit has an automatic crossover feature to switch between constant current and voltage mode.</li> <li>• The unit has a small footprint (33.5x12.5x28cm) and large handle which makes it easy to transport.</li> </ul>		
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			<ul style="list-style-type: none"> <li>The unit has four sets of safety-recessed high voltage output terminals</li> <li>The unit is certified to meet CE, UL and CSA safety standards.</li> <li>The unit features a large, easy-to-read LCD display.</li> </ul>		
24	42	<b>Western Blotting System</b>  <b>Make : "Genaxy Cleaver"</b> <b>Model : CVS10CBS</b>	<ul style="list-style-type: none"> <li>Electro-blotting system which can transfer protein as well as Nucleic acid from 10x10 cm gel.</li> <li>Electro-blotting system which can accommodate at least 4 gels cassettes simultaneously.</li> <li>System must come with asymmetric color-coded cassettes so that they cannot be inserted in wrong direction in any case.</li> <li>Fibre pads should come with the system so that they can compress the gel against the nitrocellulose membrane for uniform transfer.</li> <li>System should be having plate-electrodes 12.8cm apart so allows the rapid transfer of gels.</li> <li>System can be connected to external chiller for cooling by snap-lock connectors which should be provided with the system.</li> <li>System external dimension should not be more than 20 x22.5x 18.5 cm (Wx DxH).</li> </ul>	91560.00	<b>Labline Instruments (India) Pvt Ltd, Agrawal Complex rallies Plot, Near railway bridge, Amravati-444601. Mob. 9823072289</b>
25	44	<b>Vacuum Oven</b>  <b>Make: M/s Jeio Tech Co. Ltd. Korea.</b> <b>Model OV11</b>	<ul style="list-style-type: none"> <li>Volume capacity: Approx. 65L / 200L</li> <li>Temperature Range: Ambient + 5 – 250°C</li> <li>Controller: Digital P.I.D. auto – tuning/Calibration</li> <li>RS-232 Interface Temperature control</li> <li>Standard Accessories: Software and Cable 26</li> <li>Vacuum range: 0 to 0.1 Mpa, analog gauge</li> <li>Shelves: Anodized aluminium plate</li> <li>Digital LED display (1 deg C resolution) with touch sensitive keypads 3 different temperature values memorable without auto tuning Over temperature limiter / door opening alarm</li> <li>Separately equipped vacuum and vent ports Block type heaters.</li> <li>Electric requirement: 230V AC, 50/60H</li> <li>Should be provided with all installation software.</li> </ul>	307000.00	<b>Saksham Technologies Pvt. Ltd. 108-110, Agrawal B28, Commerce complex Dhruv Park. Kanchpada, Off. Link road, Malad (West), Mumbai 400064 Ph. 022 28443636</b>
26	48	<b>Liquid Handling System</b>  <b>Make : EP Motion</b> <b>Model 5070</b>	<ul style="list-style-type: none"> <li>System should be suitable for applications like making serial dilutions; plate reformatting from 96 well to 384 well &amp; vice versa; plate replication in 24 well, 96 well or 384 well formats; concentration normalization;</li> </ul>	2871718.00	<b>Eppendorf India Limited, 18, Waman Patil Industrial Estate, Waman Patil Marg,</b>


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			<ul style="list-style-type: none"> <li>• Hit-picking; reagent transfer from reservoirs; low volume assay set-up (like PCR, Real Time PCR and sequencing set-up); pooling of samples from plates to tubes, media change for cell culture; compound testing; magnetic bead set up; cell assays and immunoassays; cell seeding; cell aliquoting; apoptosis tests; cytotoxicity tests; cell viability tests and soft agar test.</li> <li>• Should have features such as pipetting pattern recognition for fast and easy programming.</li> <li>• Should have Contamination free Air cushion pipetting Technology with disposable tips.</li> <li>• Should have pipetting range from 1 µl to 1,000 µl.</li> <li>• Should be an open system for Labwares of various venders.</li> <li>• Should have pipetting tools with single- and eight-channel heads.</li> <li>• Should be able to pipette, multi dispense and carry out serial dilutions.</li> <li>• Should be capable of handling liquids with different physical properties like density, viscosity and vapor pressure.</li> <li>• Free jet dispensing, while dispensing tips are not allowed to dip in to liquid, to minimize cross-contamination.</li> <li>• Typical pipetting precision should be &lt; 2% CV at 1 µl.</li> <li>• Should be compatible with 0.2 ml PCR to 50 ml blue-cap tubes; 6 to 96 and 384 well plates.</li> <li>• Should be able to use filter and non-filter tips, should be able to discard tips as per the need.</li> <li>• Should have a separate container for tip disposal.</li> <li>• Should be possible to integrate the same in common laminar flow</li> <li>• Should have optical infrared detector for contact-free detection of labwares, tips, and liquid levels.</li> <li>• Should have easy to use software with pre-loaded labware files.</li> <li>• Should be capable of validating the program and check for required labware, reagent levels and their positions before commencing the work.</li> <li>• Should have 4-position deck and all routine pipetting capability.</li> </ul>		<b>Opp. Dukes Factory,</b> <b>Chembur, Mumbai</b> <b>4000071 Mob. 9372421680</b>
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			<ul style="list-style-type: none"> <li>The system should provide an option to control automated pipetting by either the PC or the control panel.</li> <li></li> </ul>		
27	49	<b>Nanophotometer</b>  <b>Make : Eppendorf</b> <b>Biospectrometer</b> <b>Model : D30</b>	<ul style="list-style-type: none"> <li>Quantification of sample volumes from 'Microlitres to Millilitres'.</li> <li>Optics must have the combination of xenon flash lamp with holographic aberration-corrected concave grating and receiver as CMOS photodiode.</li> <li>Operating principle must be with two beams: Absorption single-beam spectrophotometer with the reference beam.</li> <li>Instrument should operate moment switched on with no warming up time.</li> <li>Should be compact &amp; stand-alone system to handle sample volume ranging from 1.5 <math>\mu</math>L to 4 mL.</li> <li>UV/Vis wavelength range from 200 nm to 830 nm, with spectral scanning feature.</li> <li>At least there should be 100 installations of BioSpectrometers.</li> <li>Low volume measuring surface must be of quartz and must be hydrophobic.</li> <li>System should also allow using conventional quartz/glass/plastic cuvettes in addition to low volume measurement.</li> <li>Must allow rapid and reliable quantification of Nucleic acids and proteins, OD600, dye methods (to calculate the FOI (both nucleic acid &amp; protein)).</li> <li>Should allow acquire data at user-defined wavelengths from 200 nm to 830 nm and at user preferred pathlength.</li> <li>Detection range for dsDNA: 2.5 ng/<math>\mu</math>L – 1500 ng/<math>\mu</math>L (with defined pathlength of 1 mm).</li> <li>Concentration via standard series must have curve fit evaluations viz., Regressions (linear, cubical, quadratic), and Interpolations (linear &amp; Spline) with curve sections in detail with view directly on the instrument display.</li> <li>Should allow transfer of measured data to PC by connecting the device directly to PC without any additional software in addition to transfer the data via USB stick.</li> <li>Must have evaluation methods with factor, standard or standard series.</li> </ul>	450000.00	<b>Eppendorf India Limited,</b> <b>18, Waman Patil Industrial</b> <b>Estate, Waman Patil Marg,</b> <b>Opp. Dukes Factory,</b> <b>Chembur, Mumbai</b> <b>4000071 Mob. 9372421680</b>

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			<ul style="list-style-type: none"> <li>• Must have Multi – wavelength, Dual-wavelength applications with subtraction and division analysis.</li> <li>• Pre-programmed methods for a quick start.</li> <li>• Direct operation on the device, with no requirement for PC.</li> <li>• Measuring results (&gt;1,000) can be saved directly on the device.</li> <li>• &gt;100 method programs in memory.</li> <li>• Spectral band width: &lt; 4 nm</li> <li>• Photometric measuring range: 0 A to 3.0 A at 260 nm</li> <li>• Random error: <math>\leq 0.002</math> if A = 0, <math>\leq 0.005</math> (0.5 %) if A = 1</li> </ul>		
28	52	<b>Semi Dry Transfer Unit with Built In Power Supply</b>  <b>Make: "Genaxy Hoefer Model : TE70XP"</b>	<ul style="list-style-type: none"> <li>• System should include In-built Power supply which should automatically monitors the transfer status and stopping the transfer before the stack overheated.</li> <li>• Semi Dry transfer Unit should support as many as two layers of gels.</li> <li>• System must have power setting of 30 V, 500 mA, 15 W.</li> <li>• System must have a capacity for 14 X 16 cm transfer area which can handle up to 4 mini gels by stacking it.</li> <li>• Unit must use minimum quantity of buffer to transfer proteins and nucleic acids in less than an hour.</li> <li>• System must have molded base w/platinum coated Titanium anode and high voltage leads.</li> <li>• Safety circuit breaker should be included.</li> <li>• Electrode should be vented for preventing bubble formation during transfer.</li> </ul>	233000.00	Labline Instruments (India) Pvt Ltd, Agrawal Comlex rallies Plot, Near railway bridge, Amravati-444601. Mob. 9823072289
29	53	<b>Vacuum Concentrator</b>  <b>Make : Ependrof Model : Concertrator Plus</b>	<ul style="list-style-type: none"> <li>• System should be a Centrifugal Vacuum Concentrator with integrated vacuum pump for biological applications</li> <li>• System and pump should be highly resistant for organic solvents like Acetonitrile, DMSO, chloroform etc</li> <li>• System should have three operational modes for Aqueous, Alcohol and Highly Volatile solvents</li> <li>• System should possess four temperature selections (room temperature, 30 °C, 45° C, and 60 °C) to allow safe and efficient concentration of biological samples</li> <li>• System should support Centrifugation and Desiccator function</li> <li>• Run time: 1 min to 9:59 hrs in increments of 1 minute or infinite</li> </ul>	685287.00	Eppendorf India Limited, 18, Waman Patil Industrial Estate, Waman Patil Marg, Opp. Dukes Factory, Chembur, Mumbai 4000071 Mob. 9372421680


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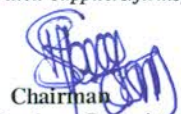
  
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			<ul style="list-style-type: none"> <li>Centrifuge should have a fixed rotational Speed of 1,400 rpm</li> <li>System should have imbalance detection</li> <li>System should support multiple lab ware format s (0.2 ml. 0.5ml, 1.5ml, 2 ml, 15ml conical tubes, 50 ml conical tubes, 96 well PCR plates, MTP and Deep well plates) with different rotors</li> <li>System should be able to concentrate samples upto a maximum capacity of 300 mL</li> <li>Rotors and adapters must be autoclavable</li> <li>Capacity of built-in pump: 1.7 m3/h</li> <li>Max. Vacuum: &lt; 20 hPa (&lt; 20 mbar)</li> <li>System should have an emission condenser with volume approximately 275 mL to purify outlet air.</li> <li>Should be optionally supplied with a suitable cold trap</li> </ul>		
30	54	<b>Multiwell Plate Shaker</b>  <b>Make: Genaxy</b> <b>Model : GEN-MX-100-4A</b>	<ul style="list-style-type: none"> <li>Orbit Diameter – 4 mm</li> <li>Permissible Shaking Weight – 4 Microplates</li> <li>Motor Rating Output – 13 W</li> <li>Motor Rating Output – 57 W</li> <li>Speed Range – 100 to 1100 RPM with timer</li> <li>Timer Display – 99 Hrs 59 Mins</li> </ul>	55754.00	<b>Labline Instruments (India) Pvt Ltd, Agrawal Comlex rallies Plot, Near railway bridge, Amravati-444601. Mob. 9823072289</b>
31	55	<b>Laboratory Fermenter/Bioreactor -5 Ltr Capacity</b>  <b>Make: BioAge</b> <b>Model : Bio-Spin-5A</b>	<ul style="list-style-type: none"> <li>Complete With 5.7 inch TFT Touch Screen/Graphic display Control Panel</li> <li>pH probe with cable, Temp. Sensors, heating element, 3 No. Peristaltic Pumps, DAS/SCADA software and accessories as given under</li> <li>With 5.7 inch colored TFT control Panel, SS Flange with ports for(pH,DO,sampling and Nozzles for Acid base, Antifoam,addition +1 spare port),</li> <li>pH probe with transmitter and cable,</li> <li>PMDC motor with magnetic coupling, Temp. Sensor, Heater, Sparger,</li> <li>Rushton turbine type impellers-2 no., Baffle-4no., Rotameter (0-5 LPM),</li> </ul>	486700.00	<b>Instrulab India Deshna Nagar, Behind Raj Plaza Market, Near Ambika Nagar, Amaravati 444606 Mob. 9823056590</b>

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			<ul style="list-style-type: none"> <li>• Aantifoam sensor, Peristltic Pumps-3 No., Inlet/outlet Filters- 2 No, air pump, Software, accessories etc.</li> </ul>		
			<ul style="list-style-type: none"> <li>• <b>M.O.C. of Vessel:-</b>Borosilicate glass with Round Bottom and SS316 Top flange, Table top <b>Autoclavable type</b>.</li> </ul>		
			<ul style="list-style-type: none"> <li>• <b>Top Flange/ Plate:-</b> Made of SS 316 and having sensor ports for pH/DO/Antifoam/ Temperature alongwith Nozzles for Acid/ Base/ Antifoam/ Air/ Sample Harvesting etc. and port for Inoculation and Exhaust Condenser. The top plate is having Lifting Handles for easy handling of Fermenter vessel.</li> </ul>		
			<ul style="list-style-type: none"> <li>• <b>Condenser:-</b> Shell in Tube Type SS 316 Exhaust Condesner fitted on the top of the flange with 0.22 micron PTFE filter for out gas and air filtration. Water inlet and out let for circulation of cold water to maintain the reaction volume or cool down the vapors going out with exhaust gases.</li> </ul>		
			<ul style="list-style-type: none"> <li>• <b>Baffles:-</b> Four numbers Baffles provided for breaking the vortex for proper mixing. Baffles are removable Type.</li> </ul>		
			<ul style="list-style-type: none"> <li>• <b>Controls and instrumentation</b> The system is Microcontroller based with Advanced Technology having Password Protection and having Large 5.7" Coloured TFT Display with display and controls for pH/ Temperature and RPM . Larger Display having Glance Screen to Display all the Parameter Values on a Single Screen.</li> </ul>		
			<ul style="list-style-type: none"> <li>• <b>A. Agitation</b> Drive: Top Driven having Magnetically coupled drive with Highly Temperature stable magnets (Removing the need of Seal, thus preventing the contamination through Direct coupling) Impellers:- Rushton turbine type impellers, 4 blades two impellers, removable type and made of SS316. Speed Control: Variable speed control within 20 to 1200 RPM for microbial fermentation and 20 to 500 RPM for Cell culture, control accuracy of }1 RPM. Motor: PMDC Type having 0 to 1500 RPM and 4 Kg.cm Torque.</li> </ul>		


  
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			<ul style="list-style-type: none"> <li>• <b>B. Temperature control</b> Temperature Control Type: PID control having controlling Range from 4 to 70°C and controlling accuracy of )0.1°C and Measurement Range from 0 to 100°C. Temperature Sensor: Pt 100 RTD Heating and cooling for Temperature Control:- Inbuilt heating rod of 200 watt in SS 316 housing for efficient temperature increase. Cooling SS coil provided for the circulation of chilled/cold water in side the vessel for lowering the temperature below ambient.</li> </ul>		
			<ul style="list-style-type: none"> <li>• <b>C. pH measurement and control</b> pH Sensor: Gel filled type Measuring Range:- 0 to 14 Control Accuracy: - ) 0.1 pH pH control: Automatic control with Two Numbers Peristaltic Pumps for Addition of Acid/ Base The pumps can also be run in Manual mode. The pH controlling system is complete with pH Probe, Transmitter and pH cable alongwith Dosing Bottles. The system is having Auto pH Calibration with 2 point or 3 points calibration i.e. either using 2 Buffers or 3 buffers and provided with Uncalibration option.</li> </ul>		
			<ul style="list-style-type: none"> <li>• <b>D. Aeration</b> With Oil/ moisture free Air pump and controlled with Glass Metered Needle Valve <b>Rotamter 0 to 5LPM</b> variable and fitted with 0.22R Inlet filter for feeding Sterile Air/ Gas. The filter is PTFE, Hydrophobic and Autoclavable Type. Sparger Type:- Ring type air sparger with fine pin holes provided towards bottom of the vessel for uniform distribution of Air/ Gas. Inlet/Exhaust Filters: - 0.22 micron absolute Hydrophobic PTFE/Autoclavable filter of PTFE, 0.22 micron Hydrophobic, 50 mm dia, autoclavable 20 times</li> </ul>		
			<ul style="list-style-type: none"> <li>• <b>E. Foam/ level controller</b> SS316L Conduction probes for automatic Level Foam control. Time Proportionate Control. Provided with one number peristaltic pump with anti foam sensor and cable.</li> </ul>		
			<ul style="list-style-type: none"> <li>• <b>F. Feed controller</b> One number peristaltic pump provided to automatically feed the feed/ substrate Automatically. The pump can be made ON/OFF with Timer.</li> </ul>		


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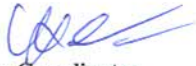
		<ul style="list-style-type: none"> <li>• <b>Accessories:</b> System would be supplied with sufficient no. O ring, silicon tubes with 6 set of 250ml Borosilicate glass feed bottles with disposable disk PTFE filters of 25mm dia, SS clamps etc</li> </ul> <p><b>Power Supply:-</b>230V + 10% 50HZ, AC.</p>		
		<ul style="list-style-type: none"> <li>• Chiller-Circulator:- System would be supplied Chiller with circulation facility for temperature control within 5°C to below ambient. The size of storage tank:-5 liter, MOC:-SS304 for contact parts and MS Powder Coated for non contact parts.</li> </ul>		
		<ul style="list-style-type: none"> <li>• D.O<sub>2</sub> Electrode: System would be supplied Galvanic Type Online DO Probe with Glass Housing and sterilizable at 121.5oC and 15psi and complete with DO monitor and DO lead having Cascade control to maintain the DO. Range: 0 to 200%.</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Autoclave vertical laboratory type</b> System would be supplied Complete SS units with Basket &amp; Foot Lifting arrangements. Suitable for Sterilization of 5 Ltr. Capacity Fermenter Vessel</li> </ul>		
		<p><b>Other special features in fermenter</b></p> <ul style="list-style-type: none"> <li>• (i) Magnetically coupled Drive without any need for Mechanical Seal. Thus removing the chances of contamination in case of leakage through mechanical seal. Moreover it also removes the expenses of removal of Mechanical seal. The magnet used is highly Thermal stable thus there is no impact on magnetism due to repeated Autoclaving and thus does not require any replacement.</li> </ul>		
		<ul style="list-style-type: none"> <li>• (ii) Password Protection: - The Controller is having Password Protection to stop the unauthorized usage of the Fermenter or stopping unauthorized persons from changing the controlling parameters.</li> </ul>		
		<ul style="list-style-type: none"> <li>• (iii) Microprocessor based large and multi colored TFT Display (Better and advanced than LCD Display)</li> </ul>		
		<ul style="list-style-type: none"> <li>• (iv) Microcontroller system having very Small and single Transmitter card for measurement of parameters.</li> </ul>		
		<ul style="list-style-type: none"> <li>• (v) Auto restart in case of Power Failure.</li> </ul>		
		<ul style="list-style-type: none"> <li>• (vi) Audio/ Visual Alarms for Deviation in Parameters within Prescribed Limits.</li> </ul>		
		<ul style="list-style-type: none"> <li>• (vii) Sensor/ Probes alarms in case of Non connection or malfunctioning of the sensor.</li> </ul>		

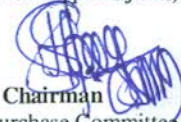
  
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			<ul style="list-style-type: none"> <li>viii) The vessel can be used for both for Microbial Fermentation as well as cell culture applications.</li> <li>(ix) Shell in Tube Type Condenser made in SS316 provided on the Top plate with Exhaust for removal of gases and In-out nozzles provided on condenser jacket to cool down the vapours so as to avoid dehydration of the culture. Condenser having 0.22 micron filter to avoid outside contamination entering the vessel</li> <li>(x) Data Acquisition: System will have USB/RS232 Communication Port to transfer and save the data in the PC with DAS/SCADA software.</li> <li>(xi) One spare port is also given on Top plate.</li> <li>(xii) System is manufactured as per ASTM standard and ISO 9001:2008 and CE certifications.</li> </ul>		
32	57	<b>Mini Vertical Gel Electrophoresis Unit along with Power supplies</b>  <b>Make: Genaxy</b> <b>Model : GENECO-V-Mini with GEN-MPP-2</b>	<ul style="list-style-type: none"> <li>Vertical systems for PAGE gels</li> <li>The system should be made of Acrylic material.</li> <li>Combs &amp; Spacers should be made of Teflon.</li> <li>The size of gel tray should be midi : 8x7 cm</li> <li>mini 7 well comb along with variable compatible spacers.</li> <li>system compatible with all type of precast gels.</li> <li>Rapid Gel casting &amp; loading should be available.</li> <li>Platinum electrodes : red and black (1 each).</li> <li>Minimum buffer requirement.</li> <li>An external caster should come with the system for casting the gels outside the Tank.</li> <li>Power supplies for low voltage and low current application.</li> <li>Output DC Voltage : 50 to 250V variable</li> <li>Output current : Maximum 100 mA variable</li> <li>Body : MS with powder coated body.</li> <li>Input voltage : 230V, 50Hz, A.C. Supply</li> </ul>	42625.00	Labline Instruments (India) Pvt Ltd, Agrawal Comlex rallies Plot, Near railway bridge, Amravati-444601. Mob. 9823072289
33	58	<b>Maxi Vertical Gel Electrophoresis Unit along with Power supplies</b>	<ul style="list-style-type: none"> <li>Vertical systems for PAGE gels</li> <li>The system should be made of Acrylic material.</li> <li>Combs &amp; Spacers should be made of Teflon.</li> <li>The size of gel tray should be maxi : 16x20 cm</li> </ul>	64768.00	Labline Instruments (India) Pvt Ltd, Agrawal Comlex rallies Plot, Near railway

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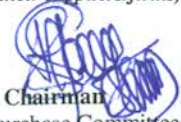
  
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		<p>Make : Genaxy</p> <p>Model : GENECO-V-Mini with GEN-MPP-2</p>	<ul style="list-style-type: none"> <li>• Maxi 20 well comb along with variable compatible spacers.</li> <li>• system compatible with all type of precast gels.</li> <li>• Rapid Gel casting &amp; loading should be available.</li> <li>• Platinum electrodes : red and black (1 each).</li> <li>• Minimum buffer requirement.</li> <li>• An external caster should come with the system for casting the gels outside the Tank.</li> <li>• Power supplies for low voltage and low current application.</li> <li>• Output DC Voltage : 50 to 250V variable</li> <li>• Output current : Maximum 100 mA variable</li> <li>• Body : MS with powder coated body.</li> <li>• Input voltage : 230V, 50Hz, A.C. Supply</li> </ul>		bridge, Amravati-444601. Mob. 9823072289
34	59	<p>Mini Horizontal Gel Electrophoresis Unit with power supplies</p> <p>Make: Genaxy Model : GENECO-V-Mini with GEN-MPP-2</p>	<ul style="list-style-type: none"> <li>• Horizontal:- Mini System</li> <li>• The construction material used should be acrylic in nature.</li> <li>• UV transparent Trays.</li> <li>• Comb Thickness should be 1.5, For Mini 8 well comb</li> <li>• Gel Trays for Mini 10x7 &amp; 5x7 cm.</li> <li>• An external caster for casting the gel outside the tank.</li> <li>• Connecting Cord : red and black (1 each).</li> <li>• No. of Platinum electrodes : red and black (1 each).</li> <li>• Compatible power supply and connecting cords should be included for low voltage and low current application.</li> <li>• Output DC Voltage : 50 to 250V variable</li> <li>• Output current : Maximum 100 mA variable</li> <li>• Body : MS with powder coated body</li> <li>• Input voltage : 230V, 50Hz, A.C. Supply</li> </ul>	31305.00	Instrulab India Deshna Nagar, Behind Raj Plaza Market, Near Ambika Nagar, Amaravati 444606 Mob. 9823056590
35	60	<p>Maxi Horizontal Gel Electrophoresis Unit with power supplies</p> <p>Make: Genaxy Model : GENECO-V-Mini with GEN-MPP-2</p>	<ul style="list-style-type: none"> <li>• Horizontal:- Mini System</li> <li>• The construction material used should be acrylic in nature.</li> <li>• UV transparent Trays.</li> <li>• Comb Thickness should be 1.5, For Maxi 26 well comb should come with the system.</li> <li>• Gel Trays for Maxi 20x20cm.</li> <li>• An external caster for casting the gel outside the tank.</li> <li>• Connecting Cord : red and black (1 each).</li> </ul>	42684.00	Instrulab India Deshna Nagar, Behind Raj Plaza Market, Near Ambika Nagar, Amaravati 444606 Mob. 9823056590


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			<ul style="list-style-type: none"> <li>No. of Platinum electrodes : red and black (1 each).</li> <li>Compatible power supply and connecting cords should be included for low voltage and low current application.</li> <li>Output DC Voltage : 50 to 250V variable</li> <li>Output current : Maximum 100 mA variable</li> <li>Body : MS with powder coated body</li> <li>Input voltage : 230V, 50Hz, A.C. Supply</li> </ul>		
36	61	<b>Fume Hood</b>  <b>Make : SPIRE</b> <b>Model : SAIH-FH-TT-012</b>	<ul style="list-style-type: none"> <li>Fume Hood Made of M.S. CRCA Epoxy powder coated structure. The work surface is fitted with wash basin with good quality tap. A gas cocks is also fitted for gas supply.</li> <li>A sliding slash made of toughened glass move vertically up and down with concealed counter balanced weight.</li> <li>Chamber is fitted with 20W fluorescent light.</li> <li>Supplied with cord and plug to work on 220Volts, 50 Hz A.C. Complete with exhaust system.</li> <li>Dimensions of work area (in mm) : 120 W x 750 H x 750 D mm</li> <li>Noise level at 1 Mtrs from Fume Hood : 67 dba (When Ambient Sound level is not greater than 55 dba)</li> <li>Air velocity on front opening with shutter full open : 0.5 } 0.1 m/s</li> <li>With shutter open up to recommended level of 200 mm: 1.4 } 0.2 m/s</li> <li>Air flow capacity of Blower : CFM (Max), 50 mm WG (500 PA) Static pressure</li> <li>Power Supply: 230 v AC, 1 Ph, 50 Hz, with earthing</li> <li>Construction of Work area : P.P. Standard</li> <li>Front Shutter : Aluminum framed Toughened Glass 5 mm thick with Counter</li> <li>Side Leg : M.S. CRCA Painting-Polyurathene / Epoxy / Stoving Enamel</li> <li>Table Top : Telephonic Black Granite</li> <li>Water Tap : Water tap provided at left side of the unit</li> <li>Gas Cock : Gas / Air cock provided at left side of the unit</li> <li>Sink : PP Sink Provided</li> <li>Blower: Casing/Impeller – M.S. Fabricated With FRP Coating</li> </ul>	253700.00	<b>Spire automation and innovation india 71,B-28, Rajsagar, Kirti Nagar, New Sangvi, Pune, 411061 Mob. 9975777088</b>

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			from Inside -1 Hp -1200 rpm		
			<ul style="list-style-type: none"> <li>Alarm Indication : Exhaust blower trip alarm indication on from panel of the unit.</li> </ul>		
			<ul style="list-style-type: none"> <li>Electrical : Three pin socket with switch -16 amp-2 nos. on fuming hood leg, tube light switch etc.</li> </ul>		
37	62	<b>Gel Rocker With Timer</b>  Make : BioEra Life Science Pvt. Ltd. Pune Model: GR-260501	<ul style="list-style-type: none"> <li>Gel Rocker can be used for many applications like gel staining, culture aeration, bathing, blotting membranes etc.</li> <li>A metal platform with non-slip rubber mat moves in a gentle 'See Saw' motion.</li> <li>The movement is controlled precisely with a DC motor.</li> <li>Cushion and rubber feet prevent unit from 'slipping'. Specification</li> <li>Motor : D.C.</li> <li>Maximum RPM : 60</li> <li>Speed controller : Analogue</li> <li>Timer : Digital</li> <li>Time range : 1-99mins/Cont.</li> <li>Platform Size : 25 x 25 cm</li> <li>Input Voltage : 230V, 50Hz, A.C. Supply</li> </ul>	31000.00	<b>BIOERA LIFE SCIENCES PVT LTD BIOERA PARK, SURVEY NO. 125, MUMBAI-BANGALORE HIGHWAY, TATHAWADE, PUNE 411033, MOB.+91 9822773256</b>
38	63	<b>Thermo-mixer</b>  Make: Eppendorf Model : Thermo Mixer C	<ul style="list-style-type: none"> <li>Thermal Device with unique mixing performance with excellent temperature control to guarantee complete, dependable and reproducible test results</li> <li>It should have heating, mixing and cooling in all common vessel and plate formats from 5 µL to 50 mL</li> <li>It should have excellent mixing performance due to unique 2DMix-Control technology</li> <li>It should have anti-spill technology prevents lid wetting and cross-contamination</li> <li>It should have Reliable prevention of condensate formation with the Eppendorf ThermoTop (condens.protect®)</li> <li>It should have excellent temperature management and maximum temperature accuracy</li> <li>Should be provided with block of 24x 0.5 ml, 24x 1.5 ml, 24x 2 ml, 96 well PCR plates, 8 x 5 ml, 8 x 15 ml, 4x 50 ml, MTP &amp; DWP</li> </ul>	562740.00	<b>Eppendorf India Limited, 18, Waman Patil Industrial Estate, Waman Patil Marg, Opp. Dukes Factory, Chembur, Mumbai 4000071 Mob. 9372421680</b>


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			<ul style="list-style-type: none"> <li>• It should have simple and intuitive operation due to predefined program keys and clearly arranged menu guides</li> <li>• Max. speed 3,000 rpm 1</li> <li>• Mixing and vortexing radius 1.5 mm</li> <li>• Mixing frequency 300–3,000 rpm 1</li> <li>• Mixing orbit 3 mm</li> <li>• Temperature range Min: 15 °C below RT, max: 100 °C</li> <li>• Temperature accuracy Max. <math>\pm 0.5</math> °C at 20 – 45 °C</li> <li>• Temperature settings 1 °C / 100 °C</li> <li>• Timer 15 sec to 99:30 h, continuous</li> <li>• Heating rate Max. 7 °C/min (when using SmartBlock plates) 1</li> <li>• Cooling rate Max. 2.5 °C/min between 100 °C and RT</li> <li>• Interfaces USB interface</li> </ul>		
39	64	<b>Dry Bath</b> <b>Make : Eppendorf</b>	<ul style="list-style-type: none"> <li>• The equipment to provide heating &amp; cooling thru peltier technology</li> <li>• Heating and active cooling in all common vessel and plate formats from 5 <math>\mu</math>L to 50 mL</li> <li>• The operation should be easy and intuitive.</li> <li>• Predefined temperature keys should be provide to quick access to four-five important experimental temperatures. (4 °C, 16 °C, 37 °C, 56 °C and 95 °C)</li> <li>• Program memory should be 15 or more</li> <li>• Equipment to have wide range of smart blocks to work with different types of tube and</li> <li>• Temperature control from -10 °C to 110 °C *1</li> <li>• Should be provided lid with thermal lid technology to avoid condensate formation</li> <li>• Timer 15 s to 99:30 h, continuous</li> <li>• Heating rate Max. 8 °C/min or more )</li> <li>• Cooling rate Max. 4.0 °C/min or more</li> <li>• Should have USB interface</li> <li>• Power supply 220 – 240 V, 50 – 60 Hz</li> <li>• Max. Power consumption 200</li> </ul>	560555.00	<b>Eppendorf India Limited,</b> <b>18, Waman Patil Industrial</b> <b>Estate, Waman Patil Marg,</b> <b>Opp. Dukes Factory,</b> <b>Chembur, Mumbai</b> <b>4000071 Mob. 9372421680</b>


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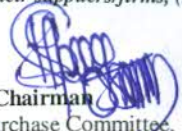
  
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			<ul style="list-style-type: none"> <li>Should be provided with block of 24x 0.5 ml, 24x 1.5 ml, 24x 2 ml, 96 well PCR plates, 8 x 5 ml, 8 x 15 ml, 4x 50 ml, MTP &amp; DWP</li> </ul>		
40	65	<b>UV transilluminator</b>  <b>Make: BioEr Life Science Pvt. Ltd. Pune.</b> <b>Model Research model ( RUV.190602)</b>	<ul style="list-style-type: none"> <li>UV Transilluminator with 21 x 26 cm of imaging area</li> <li>Should have Superbright technology so as to have publication quality gel image with no UV tube background noise</li> <li>Should have 6 x 15 Watts of 312 nm yielding intensity of 10,000 <math>\mu\text{W}/\text{cm}^2</math></li> <li>System work with extended range of dyes, viz., ethidium bromide, Gel Red, Gel Green, Lumitein, SYBR Green, SYBR Safe, SYPRO Ruby, etc.</li> <li>Adjustable dual intensity selector (100 – 70%)</li> <li>Ondulex reflector for higher UV output</li> </ul>	87000.00	<b>BIOERA LIFE SCIENCES PVT LTD BIOERA PARK, SURVEY NO. 125, MUMBAI-BANGALORE HIGHWAY, TATHAWADE, PUNE 411033, MOB.+91 9822773256</b>
41	66	<b>Mixmate</b>  <b>Make: Eppendorf Model: Mixmate</b>	<ul style="list-style-type: none"> <li>A compact and amazingly versatile mixer, specially designed for mixing small volumes (5 <math>\mu\text{L}</math> – 2 mL) in numerous plate and tube formats.</li> <li>The fast and precisely controlled mixing movements (2DMix-Control) enable efficient and homogeneous mixing of samples in all vessel formats.</li> <li>It accommodates micro test tubes, PCR plates, PCR strips, deepwell plates, and MTPs.</li> <li>The integrated touch vortex function, with minimal hand/arm vibration transfer</li> <li>Mixing and vortexing radius 1.5 mm</li> <li>Mixing frequency 300 – 3,000 rpm</li> <li>Mixing orbit 3 mm</li> <li>Touch vortex frequency 3,500 rpm</li> <li>Sample capacity max. 96 x 0.2 mL, 24 x 0.5 mL, 24 x 1.5 mL, 24 x 2.0 mL, 1 x DWP or 1 x PCR plate</li> <li>Timer 15 s–99.3 h, continuous</li> <li>Noise level &lt; 50 dB(A)</li> <li>Should be European CE and IVD certified</li> </ul>	123900.00	<b>Eppendorf India Limited, 18, Waman Patil Industrial Estate, Waman Patil Marg, Opp. Dukes Factory, Chembur, Mumbai 4000071 Mob. 9372421680</b>
42	67	<b>Gel dryer</b>	<ul style="list-style-type: none"> <li>Should convenient and reliable units for preserving fragile electrophoresis gels for storage.</li> </ul>	46150.00	<b>Instrulab India Deshna</b>

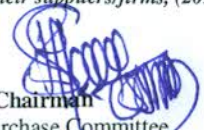
  
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		<b>Make: Genei Model GD-01</b>	<ul style="list-style-type: none"> <li>• Should accommodate all various gel sizes made on electrophoresis instruments.</li> <li>• Gels (1.5 mm) take only 30 mins to dry and the unit shuts off automatically after lapse of set time.</li> <li>• Should have unique audio and visual alarm to indicate end of run.</li> <li>• Clear silicon sheet permits easy viewing while gels dry on powerful heaters (400 W in Junior Model and 800 W in Senior Model).</li> <li>• The temperature(upto120° C) and time(upto 4hrs) can be electronically controlled by knobs provided.</li> <li>• The gel dryer will work most efficiently if connected to a vacuum pump delivering more than 22 PSI (560 mm Hg).</li> <li>• Gel dryer should provided with a Vacuum gauge and tubing connectors.</li> <li>• Temperature Range : 5 Deg. C. Above ambient to 120°C. (Ambient at 25°C).</li> <li>• Temperature controller: Digital.</li> <li>• Temperature Sensitivity: +/- 1°C.</li> <li>• Temperature sensor: PID</li> <li>• Timer : Digital</li> <li>• Timer Range: 1-999mins.</li> <li>• Body: FRP</li> <li>• Platform Dimension:25cm x 35cm Junior</li> <li>• Input Voltage: 230V,50 Hz,15 amps(max). A.C. Supply</li> </ul>		<b>Nagar, Behind Raj Plaza Market, Near Ambika Nagar, Amaravati 444606 Mob. 9823056590</b>
43	68	<b>Mini Plate Centrifuge</b>  <b>Make: Genaxy Model : GEN-Mini-Plate</b>	<ul style="list-style-type: none"> <li>• Mini Plate centrifuge should be compact and economical</li> <li>• Should be with two position rotor.</li> <li>• It can quickly spin down droplets and condensation and is for use before and after thermal cycling to improve PCR yield.</li> <li>• It accepts skirted , non skirted and standard PCR plates making , and it is suitable for molecular laboratory.</li> <li>• Capacity: 2 PCR Plates</li> <li>• Rotor Speed: 2500 RPM</li> <li>• G Force: 500 x g</li> <li>• Dimensions: 20(w) x 23(D) x 19.3(H) cm</li> </ul>	44600.00	<b>Instrulab India Deshna Nagar, Behind Raj Plaza Market, Near Ambika Nagar, Amaravati 444606 Mob. 9823056590</b>

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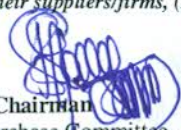
  
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			<ul style="list-style-type: none"> <li>Weight: 3 Kg</li> <li>Power: 230V, 50-60Hz</li> </ul>		
44	69	<b>Fluorescent microscope</b>  <b>Make: Olympus</b> <b>Model : CX21i</b>	<ul style="list-style-type: none"> <li>Standard complete microscope set with Binocular head, integrated 6V 20W halogen light illuminator, Anti-Fungal coated Plan Achromatic Objectives 4x,10x,40x (spring) &amp; 100x (oil, spring), paired wide field eyepieces 10x,</li> <li>Manufactured under license from Olympus Corporation, Japan.</li> <li>Infinity Plan Optics for excellent image flatness</li> <li>Binocular head for IPD adjustment, Anti-fungus treatment for tropical durability</li> <li>Highpoint paired eyepieces, Abbe condenser with high performance aspheric lenses for bright &amp; uniform illumination throughout the field of view,</li> <li>Window in arm for convenient carrying &amp; Ergonomic design for user convenience,</li> <li>SMPS power supply for flicker free Illumination</li> <li>Rackless specimen stage for user safety and comfort, specimen stage focus-lock prevents any accidental damage to objectives</li> <li>Reflected led fluorescence light</li> <li>Attachment with 480nm blue excitation for immunofluorescence tests.</li> <li>High efficiency 480nm Blue LED illuminator, 2 position filter slider with excitation band pass filter 480nm and long pass emission filter 510nm complete.</li> </ul>	187000.00	<b>Labline Instruments (India) Pvt Ltd, Agrawal Comlex rallies Plot, Near railway bridge, Amravati-444601. Mob. 9823072289</b>
45	71	<b>Electroporator</b>  <b>Make: Eppendorf</b>	<ul style="list-style-type: none"> <li>Electroporator Model enables the simple and rapid introduction of foreign DNA into bacteria, yeast and other microorganisms.</li> <li>The device has been specially optimised for targeted transformation experiments, thus ensuring highest possible efficiency level.</li> <li>Also instrument safety has been particular points of focus in the design of the unit.</li> <li>Faster sample handling – simple one button operation: just set the voltage or choose a preset parameter and insert a cuvette.</li> <li>Intuitive use – the status information on the colored display minimizes errors</li> </ul>	284514.00	<b>Eppendorf India Limited, 18, Waman Patil Industrial Estate, Waman Patil Marg, Opp. Dukes Factory, Chembur, Mumbai 4000071 Mob. 9372421680</b>


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			<ul style="list-style-type: none"> <li>• Fast and freely programmable – two program buttons allow storage and recall of most commonly used parameters, default setting : P1 1,700 V and P2 2,5000 V</li> <li>• Safe electronics and integrated electroporation chamber eliminate voltage leaks and misuse.</li> <li>• Compact, space saving design for easy storage and transport.</li> <li>• Easy, GLP-complaint documentation via USB port- Data from your experiments can be exported for documentation and analysis</li> <li>• Input voltage : 100V-240V <math>\pm</math> 10%, 50 Hz-60Hz</li> <li>• Power input : 20W</li> <li>• Time constant : 5 ms nominal</li> <li>• Output waveform : Decaying exponential waveform with RC time constant of 5 ms</li> <li>• Charging time : <math>\leq</math> 10 s</li> <li>• Interface : USB 2.0</li> </ul>		
46	72	<b>CO<sub>2</sub> Incubator</b>  <b>Make : Eppendorf</b> <b>Model : C01705HTD</b>	<ul style="list-style-type: none"> <li>• Should have at least 170 L of internal capacity.</li> <li>• Temperature management of at least 4°C above ambient to 50°C.</li> <li>• Temperature control and stability should be <math>\pm</math> 0.1°C.</li> <li>• CO<sub>2</sub> gas range should be at least 0.2 – 20%</li> <li>• CO<sub>2</sub> recovery rate of at least 0.7% per minute, up to 90% set-point.</li> <li>• Should have a large backlit display with on screen help menus, control of temperature and alarms</li> <li>• Should have separate single inner glass door for monitoring of samples without disturbing conditions of the chamber and options for 4-split inner doors OR 8-split inner doors to reduce loss of gas and reduce temperature changes due to door opening.</li> <li>• Should come with an inline pressure regulator to ensure less gas consumption and prevent overshooting of pressure which shortens life span of incubator.</li> <li>• The Inner chamber should be formed from single stainless steel sheet with deep-drawn and seamless design with no corners, welds or joints for higher capacity and ease of cleaning.</li> <li>• Should have six-sided direct heating elements to ensure even distribution of heat throughout the entire incubator chamber.</li> </ul>	350000.00	<b>Eppendorf India Limited,</b> <b>18, Waman Patil Industrial</b> <b>Estate, Waman Patil Marg,</b> <b>Opp. Dukes Factory,</b> <b>Chembur, Mumbai</b> <b>4000071 Mob. 9372421680</b>

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			<ul style="list-style-type: none"> <li>• Should come with a removable humidity tray for easy cleaning and refilling of distilled water.</li> <li>• Should be "fan less" design to reduce chance of contamination, reduce noise level, minimum air turbulence and bigger usable capacity.</li> <li>• Should have infra-red CO<sub>2</sub> sensor with "autozero" function to ensure accuracy of sensor automatically and can withstand at least 120°C during high temperature disinfection.</li> <li>• The incubator should come with standard 4 perforated stainless steel shelves and upgradable to 8 shelves.</li> <li>• Should have optional high-temperature disinfection of at least 120 °C for 4 hours. Entire HTD cycle [including the time for warming up and cooling down to incubation temperature (37°C)] should not take more than 9 hours.</li> <li>• The footprint should not exceed 4690 cm<sup>2</sup> for saving bench space.</li> <li>• Should have option to stack two incubators with stacking kit.</li> <li>• Should have optional building management system relays.</li> <li>• Should have optional incubator software command which allows tracking key operational information such as time, temperature, CO<sub>2</sub> concentration and humidity.</li> <li>• Should be supplied with CO<sub>2</sub> backup cylinder.</li> </ul>		
47	81	<b>Non-refrigerated microcentrifuge (minispin)</b>  <b>Make : BioEra Life Science Pvt. Ltd. Pune</b> <b>Model: Minlyn</b>	<ul style="list-style-type: none"> <li>• Instrument should be capable to accommodate 12 or more x 1.5/2ml tubes</li> <li>• The maximum speed should be 12000 x g or (12000 rpm) or more</li> <li>• Rotor and rotor lids should be made of aluminum for better transition of temperature and should be autoclavable (121°C for 20 mins)</li> <li>• The lid should automatically open at the end of the run</li> <li>• Rotor and lid should be chemically resistant</li> <li>• Instrument should have an air flow which minimizes sample heating</li> <li>• Should have very minimal acceleration and deceleration times</li> <li>• Noise levels should be &lt; 50dB</li> <li>• Instrument should be European CE Certified or UL marked with IVD</li> </ul>	45000.00	<b>BIOERA LIFE SCIENCES PVT LTD BIOERA PARK, SURVEY NO. 125, MUMBAI-BANGALORE HIGHWAY, TATHAWADE, PUNE 411033, MOB.+91 9822773256</b>
48	85	<b>Vertical Fermentor</b>	<ul style="list-style-type: none"> <li>• Total capacity 200 litres, working capacity upto 70 per cent of</li> </ul>	1413000.00	<b>Labline Instruments (India)</b>


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		<b>Make : Bio-Age</b> <b>Model : Bio-Spin-2001</b>	total capacity. <ul style="list-style-type: none"> <li>• Triple walled with water circulation in between two outer walls.</li> <li>• Sturdy construction with inner chamber made of 12 to 14 gauge steel.</li> <li>• Process contact parts in stainless steel grade SS304, Provided with SS304 jacket for steam and water circulation.</li> <li>• Lid is made of Stainless Steel and is tightened by nut-bolts and is provided with best quality joint less neoprene gasket to avoid any risk and trouble free operation.</li> <li>• With digital temperature and pH indicator. Fitted with water level indicator to indicate the water level inside the boiler.</li> <li>• With pressure gauge, steam release cock, safety valves, spring loaded safety valves etc.</li> <li>• Provided with Inoculation port and drain valve for emptying the chamber.</li> <li>• Provided with ISI mark heating elements, which are easily replaceable and heats the water to desired temperature (1210C) and pressure 5 to 22 Psi.</li> <li>• The boiler and outer shell is provided with air insulation.</li> <li>• Provided with stirrer along with heavy duty motor.</li> <li>• Ports and fittings for the following- Air inlet to sparger, Air exhaust (vent), etc.</li> <li>• Aeration system with autoclavable (PTFE membrane disc type) air filter capsules for air inlet and exhaust, rating 0.01 microns.</li> <li>• Control panel console provided with electrical switchgear and panel accessories Electricals – 230 V AC single phase - 02 No.</li> <li>• Accessories: Provided with refrigerating type water cooler, water recirculation pump for cold water circulation through jacket for temperature control during cooling stage. – 01 No.</li> <li>• Supplied with air compressor suitable for fermentor size – 01 No. Electricals – 230 V AC single phase</li> <li>•</li> </ul>		<b>Pvt Ltd, Agrawal Comlex</b> <b>rallies Plot, Near railway</b> <b>bridge, Amravati-444601.</b> <b>Mob. 9823072289</b>
49	92	<b>Optimiser</b> <b>Versatile Storage System</b>  <b>Make : Rescholar</b>	<ul style="list-style-type: none"> <li>• D-2 Drive Type</li> <li>• Made of CRCA steel and powder coated with epoxy polyester powder Body with adjustable shelves.</li> <li>• Bodies movable on channels mechanically through a drive wheel</li> </ul>	429000.00	<b>Labline Instruments (India)</b> <b>Pvt Ltd, Agrawal Comlex</b> <b>rallies Plot, Near railway</b> <b>bridge, Amravati-444601.</b>

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			<p>3. 2<sup>nd</sup> Derivative Graph      4. <math>\mu\text{L} / \text{Time}</math>.</p> <p>d. Program Parameters for 50 programs ( includes 10 default programs for routine titrations )</p> <p>e. Condensed result print out includes time, Sample ID.</p> <p>f. Statistical Data for 10 repeat runs with S.D, R.S.D &amp; C.V.</p> <p>g. Auto Evaluation for multi EP samples.</p> <p>Specifications:</p> <p>mV Range : +/- 3200 mV, Accuracy : +/- 0.1mV, Burette Resolution: 1/10000 for 10 ml, End point Detection: Potentiometric &amp; Voltametric.</p>		
51	103	<p>Microprocessor Controlled pH/mV/Temp. METER</p> <p><b>Make : Labindia</b> <b>Model : PICO+ pH Meter</b></p>	<p><b>pH</b></p> <p>pH Range : -2.000 to 19.999</p> <p>Resolution : 0.1 / 0.01 / 0.001 (user selectable)</p> <p>Rel. Accuracy: <math>\pm 0.002\text{pH}</math></p> <p>Slope : 80 to 120% (using 3 point calibration facility)</p> <p>pH Sensor : Combination pH Electrode</p> <p>Calibration : Automatic, with auto buffer recognition facility.</p> <p><b>mV</b></p> <p>mV Range : 0 to <math>\pm 1999.9</math></p> <p>Resolution : <math>\pm 0.1\text{mV}</math></p> <p>Rel. Accuracy: <math>\pm 0.2\text{mV}</math></p> <p><b>Temperture</b></p> <p>Range : 0 to <math>150^{\circ}\text{C}</math></p> <p>Resolution : <math>0.1^{\circ}\text{C}</math></p> <p>Rel. Accuracy: <math>\pm 0.2^{\circ}\text{C}</math></p> <p>Sensor : RTD PT100</p> <p>Temp. Comp. : Automatic / Manual</p> <p>Advanced microcontroller based user friendly design, 3 point calibration with auto buffer recognition facility, Compliance with USP &amp; DIN standards, Simultaneous measurement of pH, mV and temp., Alpha-numeric splash waterproof polyester keypad with soft keys, Facility for electrode diagnosis, Backlit LCD display, Non-volatile memory of at least 30pH &amp; 30mV readings with temperature, Password protection for calibration data &amp; stored data will be preferred, to enter sample name &amp; identification number for authentication, Audible beep indication during valid key operation, One BNC &amp; one ATC – PT100 as input &amp; one parallel port for printer &amp; one RS232C port for PC connectivity.</p>	47275.00	<p><b>Labline Instruments (India) Pvt Ltd, Agrawal Complex rallies Plot, Near railway bridge, Amravati-444601. Mob. 9823072289</b></p>

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52	104	<p>Atomic Absorption Spectrophotometer with Integrated Flame &amp; Graphite Furnace and Hydride Vapour Generator</p> <p><b>Make: Labindia</b> <b>Model : AAS (AA8000)</b></p>	<p>Fully Automated Integrated Flame and Graphite PC controlled true double beam Atomic Absorption Spectrophotometer system with deuterium background correction. <b>Optics:</b> Fully sealed and vibration free optical system. <b>Monochromator:</b> Czerny Turner type with Holographic gratings of 1800 lines/mm with minimum focal length of 300mm or better. <b>Wavelength Range:</b> Should cover minimum range of 187nm-910nm. <b>Slit/Bandwidth:</b> Adjustable slit from 0.1nm to 2nm &amp; should be software selectable. <b>Background Correction:</b> Deuterium Arc/Self Reversal. <b>Lamp Support:</b> Motorized 8 lamp turret with a capacity of mounting 8 lamps at a time. <b>Burner:</b> 10cm Air Acetylene and 5cm Nitrous Oxide burner should be offered. Burner should be capable of moving in horizontal and vertical direction and it should be controlled through software. <b>Safety System:</b> Safety interlocks for Burner Identification, Flame Sensor, Gas leak Sensor, Low Pressure Gas Sensor, Drain Trap Sensor, Power Loss Protection. <b>Special safety features for Graphite:</b> Argon Gas Pressure Sensor, Water Flow Sensor, Oven Temperature Sensor, and Broken Graphite Tube Protection. <b>Gas Control:</b> Instrument should have fully automatic gas control system to maintain gas flows and should adjust the gas flow during interchange between Air Acetylene and Nitrous Oxide. <b>Sensitivity:</b> High sensitivity absorbance of minimum 0.9 Abs for standard 5ppm Cu or better. <b>Coded Hollow Cathode Lamps:</b> Single element and coded hollow cathode lamps should be offered. Lamp for the specified elements should be offered Lead, Cadmium, Zinc, Arsenic, Copper, Tin, Mercury and Nickel. <b>Graphite Furnace:</b> Pyrolytically coated and transversely heated upto 3000°C. Safety features: 1. Argon Gas pressure sensor, 2. Water Flo Sensor, 3. Over Temperature Sensor</p> <p>4. Broken Graphite Table protection. <b>Hydride Vapour Generator:</b> Continuous flow Hydride analysis system should be offered with 4 channels Peristaltic Pump and should be chemically resistant. <b>Auto Sampler:</b> Auto sampler for graphite and Flame system. It should have auto dilution facility. <b>Software:</b> Latest software which must control main system, Auto sampler, Graphite and Hydride System should be offered. <b>Water Chiller:</b> Recalculating Water Chiller for Graphite system must be offered.</p> <p><b>Accessories:</b> Acetylene Regulator, Nitrous Oxide Regulator Heated, Nitrous Oxide Burner Head, Acetylene Gas with Cylinder, Nitrous Gas with Cylinder, Argon Gas Cylinder with regulator, Air Compressor, Vent and Hood Assembly with 10ft. ducting, PC and Printer with loaded and tested software branded DELL/HP, Standard solutions for Hollow Cathode Lamps mentioned above, Suitable Online conditioner which includes built in surge separation and isolation transformer to be quoted for the main system</p>	4102500.00	<p>Labline Instruments (India) Pvt Ltd, Agrawal Comlex rallies Plot, Near railway bridge, Amravati-444601. Mob. 9823072289</p>
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53	105	<p>ATOMIC ABSORPTION SPECTROMETER WITH INTEGRATED GRAPHITE FURNACE</p> <p>Make: Lab India Analytical Model Labindia AAS (AA8000)</p>	<p>Intend to purchase fully PC controlled Atomic Absorption Spectrometer which should have integrated Graphite Furnace with Auto sampler facility with following specification :</p> <p>Monochromator : The system should be based on Abbration corrected Czerny–Turner Grating with 1800 Lines/mm and optimized for both UV and Visible energy. Slit width should be automatic from 0.1 to 2.0 nm selectable through PC. Detector: Photo multiplier tube Detector. Wave Length Range : 190-900 nm.facility to adjust the burner horizontally and vertically. Reciprocal linear Dispersion should be &lt;1.6nm/mm and absorb. better 0.8 Abs for 5ppm Copper. have six lamp holder with automatic Turret controlled with software with auto alignment. Hollow cathode Lamps Single Element. Air Acetylene Burner Head and N<sub>2</sub>O burner head separately. Interchangeable Full titanium nebulizer for organic and acidic purpose and burner head for 50mm and 100mm, Facility to switch from flame to Graphite within few Seconds with out removing the air acetylene or N<sub>2</sub>O Burner. All the method parameters related with lamp selection, calibration, control of flow gases should be thru' windows based software. The instrument should have programmable and computer controlled gas controls both for Air Acetylene/Nitrous Oxide . The system should have all safety features required for the system. The AAS unit will be operated with windows Software for controlling analyzer, setting-up the method parameters, analyzing the samples, performing calibrations, etc. The verification kit STD for Cu to check performance periodically to be included in the offer. <b>HOLLOW CATHODE LAMPS .ACCESSORIES</b> : Hydride Generator (for elements - As,Se,Hg,Bb,Bi,Sb,Sn,Te), Automatic and computer controlled. Sample should be injected through the peristaltic pump,3 channel peristaltic pump with heated quartz cell. Acetylene Regulator, Nitrous Oxide Regulator Heated, Nitrous Oxide Burner Head, Acetylene Gas with Cylinder, Nitrous Gas with Cylinder, Air Compressor, Argon Gas Cylinder with regulator, Vent and Hood Assembly with 10ft. ducting. PC and Printer, Standard solutions for Hollow Cathode Lamps mentioned above.</p> <p><b>OPTIONAL ITEM : GRAPHITE FURNACE WITH AUTOSAMPLER :</b> Atomic Absorption spectrometer should be supplied with Integrated Built-in Flame and Graphite Furnace. It should be automatically aligned in optical path by using the software.</p>	4102500.00	<p>Labline Instruments (India) Pvt Ltd, Agrawal Comlex rallies Plot, Near railway bridge, Amravati-444601. Mob. 9823072289</p>
54	106	<p>Karl Fischer Titrator</p> <p>Make : Lab India Analytical Model : KAFI+</p>	<p>We intend to procure KF TITRATOR with following specifications &amp; features; Advanced microprocessor based standalone system with easy interchangeable imported burette assemblies (5 or 10 ml.) &amp; imported Valve with Auto Burette Recognition via advance sensor technology. Provision of minimum 50 method</p>	218950.00	<p>Labline Instruments (India) Pvt Ltd, Agrawal</p>

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			<p>storage &amp; minimum 10 result storage with statistics. It should have minimum four standardized modes of operation such as : Neutralization, Concentration, Percentage, PPM. With Serial port for balance, PC and parallel port for printer. Automatic monitoring of atmospheric moisture leaks with online as well as offline Correction Facility. In-built –Standardization procedures for Water / Sodium Tartrate compliant to USP 23/921 &amp; IS/ASTM methods. User selectable polarizing current range, useful when various grades of solvents are to be used for different samples. Password provision for method protection.</p> <p>KF Titrator should have following specifications:</p> <ul style="list-style-type: none"> <li>• mV Amplification Range - <math>\pm 3000</math> mV or Better</li> <li>• Accuracy - <math>\pm 1</math> mV or better</li> <li>• Polarised Current Range - <math>1 \mu\text{A}</math> to <math>80 \mu\text{A}</math> or better</li> <li>• Burette Resolution - <math>1/10000</math> for 10 ml. i.e. 0.001ml or Better</li> <li>• Measuring Range - <math>10 \mu\text{g}</math> to 500 mg. (i.e. 20ppm – 100%)</li> <li>• End Point cut-off criteria - Delay or Drift.</li> </ul>		<p>Comlex rallies Plot, Near railway bridge, Amravati- 444601. Mob. 9823072289</p>
55	107	<p>FTIR SPECTROMETER</p> <p>Make : THERMO Scientific Nicolet Model : iS5 FTIR Spectrometer</p>	<p>Interferometer :Michelson (or suitable) interferometer with dynamic aligned, sealed and desiccated optical System with protective BaF2 coated KBr windows, Beam Splitter :Completely sealed Ge coated KBr,Wavelength Range :7800 – 350 <math>\text{cm}^{-1}</math> ,Spectral Resolution : Variable 0.5 <math>\text{cm}^{-1}</math> to 16 <math>\text{cm}^{-1}</math>,Source : High intensity, Long life source covering entire MIR range,SNR : 35,000:1 (Peak to Peak)1 minute,Laser : Temperature controlled solid-state Near-IR diode laser, Wavenumber Accuracy : 0.05 <math>\text{cm}^{-1}</math> at 2000 <math>\text{cm}^{-1}</math>, Wavelength Precision : Better than 0.01 <math>\text{cm}^{-1}</math> at 2000 <math>\text{cm}^{-1}</math>, Detector : Temperature-stabilised room temperature DTGS detector, Performance Verification :Inbuilt motorised NIST-traceable 1.5 MIL polystyrene film with 5 years certification. Automated performance verification as per ASTM E1421, Humidity and Vapor Protection : Tightly sealed and desiccated optical bench with Magnesium-alloy construction, PC Connectivity :USB, Software : The Software should have below features: Atmospheric Vapour Compensation ,Spectral Comparison ,Multiple spectra Handling,Reporting - Customized templates, Notebook, Customizable toolbar and menu options,Spectral History,Automatic accessory detection and performance verification,Peak analysis tools: peak area, peak height ,Live display of data collection, and spectral data preview,User logins and password protection, FTIR Libraries : 50,000 FTIR spectra should be supply , Accessories :Instrument Should have Automatic accessory detection,Single Bounce Monolithic Diamond ATR to meet MIR range (up to 400 <math>\text{cm}^{-1}</math>) for Liquid, Solid, Powder &amp; film samples,Transmission module for transmission</p>	1911600.00	<p>C ABHAYKUMAR AND CO 117, Hindustan Kohinoor Industrial complex, LBS Marg, Vikhroli (West), Mumbai 400083 Ph. 022-40764700</p>


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			measurement should be included, General: Branded Desktop PC, Inject Printer & Branded UPS, Warranty :Modulator (10-year), laser(10-year), source(2-year)		
56	108	High throughput Micro Volume UV VIS Spectrophotometer  Make : Thermoscientific Model : Nanodrop 8000 UV-Visible Spectrophotometer.	Higher throughput, full-spectrum microvolume measurements UV-Visible Spectrophotometer for analysis biological sample like Nucleic acid and Proteins. The instrument should have Optical Density measurements (600 nm) Sample position illuminator, Multi-sample loading and Multi-sample measurement with pedestals technology. Wavelength range : 250-700 nm or better, Light Source : Xenon flash Lamp , Detector Type : 2048-element linear silicon CCD or better, Minimum sample Vol.: µl , Number of samples : Analyzes from one to eight samples at a time, Simply measure directly from tubes or 96-well plates, Sample retention system automatically optimizes pathlength to accommodate low and high concentrations , Wavelength Accuracy : 1nm , Wavelength Resolution : 3 nm (FWHM at Hg 546 nm), Minimum Detection Limit : 2.5 ng/µl (dsDNA) or better, Concentration Range : Measures nucleic acid concentration and purity (2.5 – 3,700 ng/µL for dsDNA), Measurement Time : 20 seconds (for 8 samples), Absorbance Range: 0.05-75 Abs. (10 mm equivalent absorbance) or better, Absorbance Precision : 0.003 Abs. or better, Path lengths : 1 mm and 0.2 mm with auto selection, Consumables : No need of any consumables like cuvettes, capillaries or reagents, Pre-configured applications : Nucleic Acid , Protein A280, Micro Array , Proteins & Labels , BCA, Bradford, Lowry, Pierce 660, UV/Vis, Cell Cultures , Software : Pre-configured methods for colorimetric protein analysis, Custom method capability, Flexible options for exporting data and producing customized reports , PC and Software : With Professional versions of Windows 7 (32 bit or 64 bit) and compatible operating software,	2060280.00	C ABHAYKUMAR AND CO 117, Hindustan Kohinoor Industrial complex, LBS Marg, Vikhroli (West), Mumbai 400083 Ph. 022-40764700
57	109	Portable X-Ray Fluorescence Spectrometer  Make : AMETEK Model : Spectroscout	The x-ray fluorescence spectrometer should be of Energy Dispersive type. It should be of latest model and should be compact, portable (shoulder slung or briefcase type) as well as capable to be carried out in a vehicle for onsite soil testing with GPS features. It should be capable of analyzing elements from Na (11) to U (92) simultaneously in soil and plant samples. The portable ED-XRF Spectrometer should be equipped with: X-ray Rh-tube of 10W upto 50kV, with a combination of filter changer. Integrated sample spinner for better analysis from a larger area of the given sample. A CCD camera enables the positioning when observing smaller sample areas. Vacuum to increase sensitivity in the element range Na-Cl when analyzing solid samples. Vacuum system to be provided . Optional Helium gas purging to be provided. SDD detector with peltier cooling having a preferred resolution of < 150 eV (Mn Kα) at an input count rate of up to 200,000 cps or better. Pre calibration package for soil and plant samples	5737500.00	C ABHAYKUMAR AND CO 117, Hindustan Kohinoor Industrial complex, LBS Marg, Vikhroli (West), Mumbai 400083 Ph. 022-40764700

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			to be provided.Unknown quantification software to be provided.Integrated computer with touch screen and as well as with external notebook/laptop with licensed Windows software and operational software to control the instrument.GPS adapter with Bluetooth, Wi-Fi, LAN & USB.Car Charger with carrying case.Consumables should include Safety windows (protective film), Sample cups and supporting film for the analysis of powder material for 1000 samples. Battery pack-1 nos.12 V DC car charging cable. Portable sample preparation system should consist of portable mini mill pulverizer preferably with zirconium oxide milling ball ( 5 pieces or more) for grinding the soil samples.		
58	110	Double Beam UV VIS Spectrophotometer  Make : Thermo Scientific Model : Evolution 260 BioUV-visible Spectrophotometer.	Optical Design / Geometry :PC- Controlled True Double beam Spectrophotometer with Separate reference and sample compartments for operation convenience, the system should incorporate Czerny-Turner Monochromator and performance calibration to be performed using Hg lamp,Wavelength Range :190-1100 nm,Spectral Bandwidth:Variable: 1 nm, 2nm,Light Source:Xenon lamp with 3 years warranty, expected life of 7 years,Detector:Silicon Photodiodes,Wavelength Accuracy : $\pm 0.8$ nm or better for full range,Wavelength Repeatability: $\leq 0.1$ nm ,Resolution : $>1.8$ (peak-to-valley ratio; toluene in hexane),Scan Modes :Absorbance, % Transmittance, % Reflectance, Kubelka-Munk, log (1/R), log (Abs), Abs*Factor, Intensity,Scanning Speed : $<1$ to 6000 nm/min;Baseline Flatness : $\pm 0.0010$ A or better,Photometric Display Range :-0.3 to 4.0 A,Stray Light :KCl, 198 nm: $\leq 1\%$ T,NaI, 220 nm: $\leq 0.05\%$ T,NaNO <sub>2</sub> ,340 nm: $\leq 0.05\%$ T,Photometric Accuracy : 0.5 A: $\pm 0.004$ A,1A: $\pm 0.006$ A,2A: $\pm 0.010$ A,Drift (Stability): $<0.0005$ A/hr 500 nm, 1.0 nm SBW, 1 hour warm-up,Noise level: 0A: $\leq 0.00015$ A,1A: $\leq 0.00050$ A,2A: $\leq 0.00080$ A:Performance Verification & Calibration :It should be with Mercury Lamp,Sample Compartment :Variable path length rectangular cell holder to be included.Sample compartment should accommodate a wide array of accessories,Software :Instrument control software including: wavelength scanning, single and multiple fixed wavelength, wavelength ratios, quantitative analysis and for running customized method scripts. Pre-programmed bio applications for routine nucleic acid and protein concentrations, colorimetric assays,labelling efficiency and DNA melting with temperature ramping. Preprogramed OD600 method for cell culture measurements,PC & Printer, Suitable UPS :Branded PC & Printer to be quoted, Warranty :12 months from the date of Installation, Accessories :Two pairs of square Quartz cuvette (10 mm path length), Installation Proof :The bidding vendor need to submit at least 10 P.Os preferably 5 each in last 2 years for Nanophotometer.	820926.00	C ABHAYKUMAR AND CO 117, Hindustan Kohinoor Industrial complex, LBS Marg, Vikhroli (West), Mumbai 400083 Ph. 022-40764700


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59	111	<b>SIMULTANEOUS ICP OES SPECTROMETER</b>  <b>Make : SPECTRO-GENESIS</b> <b>Model : AMETEK</b>	<p>The ICP spectrometer which should be truly simultaneous for elemental including silicon &amp; heavy metals analysis in, soil, plant, drinking water, waste water, ground water &amp; fertilizer samples within 60 seconds in ppb to % range. Please providing supporting application notes of the quoted model. It should be with Paschen Runge Polychromator based optical system with the use of CCD Detectors only to cover a wavelength of 177 to 770nm or wider. Please quote optionally for additional detector as normally used in the system. System with single or double monochromator is not preferred. The Polychromator optics should be gas sealed or gas purged with argon gas. The purge rate for the optics should not exceed more than 0.5 liters /min for the entire wavelength range during the analysis mode even for the wavelength below 200nm. Please arrange for argon gas bank to ensure continuous supply for at least one year to do analysis of 500 samples/month. All the gas flow to the torch should be with volume flow controller based and should be varied via computer control. The system should be provided with computer controlled features like sprint valve or equivalent for fast sample uptake, sample rinse and sample drain. The ICP plasma with suitable view to meet the above applications and specified measuring range. System with the use of air compressor or recurring cones or nitrogen gas is not preferred. The ICP plasma should be with a RF Generator of 27.12 MHz with a RF output of 1600 W or higher. For water cooled system, also quote with additional noiseless water recirculation as a standby unit. Sample introduction kit for HF samples for elements including silicon Detailed hydride generator with separate liquid and gaseous phase like CETAC's HGX-200 or better to measure elements like Hg, As, Cd &amp; Sb to sub ppm level. Please do not offer T-type tube hydride kit. The ICP Software should be incorporated with: (User Friendly Features, Ability to recall wavelength spectrum to measure previously unknown elements, Full spectrum re-processing for any sample measured, User and Data Management compliant to 21 CFR Part 11 for controlled accessibility, internal audit and electronic signatures) Consumables for two years operation which include torch, tubing, filter mat etc. The ICP should be also quoted with indigenous items viz( Computer: iCore 5, 64 bit, 1 TB Hard disk drive, 4 GB RAM, DVD writer, 21" TFT monitor, mouse, Latest licensed Windows. Laser jet printer, 8 KVA UPS with 30 minutes back up, Fume exhaust system with 10 feet duct, Argon gas (99.996% purity) filled cylinder (3nos), Gas regulator with stainless steel diaphragm-2nos, Manual gas manifold for two cylinders for the plasma operation NIST traceable multi-element standards for 21 elements including Hg, As, Cd &amp; Pb at 1000ppm-100ml. ICP Tuning Standards-100ml.</p>	4715280.00	<b>C ABHAYKUMAR AND CO 117, Hindustan Kohinoor Industrial complex, LBS Marg, Vikhroli (West), Mumbai 400083 Ph. 022-40764700</b>
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			The supplier should provide Supplier should furnish certificate about the origin of manufacture, origin of assembly & origin of shipment of the main instrument, this is mandatory. Main Instrument of Chinese origin not preferred. Certificate for the availability of spares for 10 years from the date of installation.		
60	112	<b>Grains and Oilseed Analyzer</b>  <b>Make : ZEUTEC Opto-Elektronik Gmb H, Germany,</b> <b>Model : Spectra Alyzer (Grain Analyser)</b>	Near infrared Transmittance analyser for straight determination of Protein(%), Gluten(%), Sedimentation(ml), Moisture(%)and Oil (%) in whole grain form without grinding of samples; With Built-in-> Multigrain cell and In-built -Test Weight/hectolitre (kg/hl) weight of samples.Chemometrics Software should be part of configuration for development of calibration (i.e. New Samples in future at customer site).Instrument should be rugged, Protection- Dust and Humidity, Vibration tolerant with automatic data recording system.The optical system should contain scanning, grating mono-chromator 570 - 1100 nm. Total Analysis time approx. 45 to 90sec for a sample(i.e. Depending upon no of Sub-Samples).Life time warranty on Grating Mono-chromator.The instrument to be supported by a flexible software package providing routine analysis with all essential accessories. <b>Software spec: Integrated, Stand-alone operations, fail-safe,</b> Optical path length: Automatically adjusted, Range 6 -30 mm,Verification of wavelength: Automatic during start up. Interfaces : RS 232, USB and Ethernet,User Interface: Glass, COS(Central Operation Slider), multi-language GUI,System should be able to handle Partial Least-Square Regressions and Multi-Linear Regression calibrations.Screen: TFT 640 x 480 pixel, Colour,Type of sample: Whole grain and with the Optional Sample Transport Module to measure samples with lower quantities.Optional Flour Module for measurement of Flour(Powdery Samples).Sample quantity must be more than 200grams to ensure good representation samples.All Calibration should provide accurate and repeatable analytical results and are 100 % transferable between the instruments.Sample configuration : Stand-alone or Network (Datapoints:1000,OpticalBandwidth:4 nm, Detector: <b>Silicon</b> , Scanning Monochromator, Measurement technique <b>Transmittance</b> , <b>Sample presentation</b> ,Flow through sample system( <b>Automatic</b> ),Number of sub samples should be <b>5 to 20</b> for better analysis, <b>Communications</b> (Printer ,modem, externalPC,LAN, Keyboard, Barcode, USB port, Remote I/O , Self-test,Calibration transferability : Yes Data Storage : USB memory stick for results and scans,Result presentation: Locally on screen and printer as well as on local or central computer. Outlier detector : Yes) Cleaning: Should have auto cleaning system. Machine should be independent of variations due to sample temperature for accuracy. Remote support: Machine should be able to be taken control remotely for calibration surveillance and software. As mentioned in	2851470.00	<b>C ABHAYKUMAR AND CO 117, Hindustan Kohinoor Industrial complex, LBS Marg, Vikhroli (West), Mumbai 400083 Ph. 022-40764700</b>


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			specification under networking software.Web Interface features (Access rights (depend upon user),Measurement history( Central reporting- results of last 4000 measurement's),Down load of spectral data(eg. For calibration, adjustment and development), Calibration management (bias and skews adjustment), System diagnostic – also for remote error analysis (e.g. lamp hour, error lock),User management(e.g. create user, delete user and user rights), Username / password protected (access to Spectra Alyzer).		
61	113	<p>MICRO VOLUMAE SPECTROPHOTOMETER</p> <p>Standalonebuilt-in touchscreen instrument control Low volume UV-VIS Spectrophotometer with following specifications:</p> <p><b>Make : Thermo Fisher Scientific</b>  <b>Model : Nanodrop one UV-visible Spectrophotometer</b></p>	<p>Wavelength Range :190-850 nm or better with <math>\pm 1</math> nm accuracy,Operating System :Android based 7.0" touch system with 32GB flash memory and in built Speaker. The Built in control module should be movable and tiltable for operating convenience.Spectral Bandwidth :&lt;1.8 nm (FWHM @Hg 254 nm),Minimum Sample Size :1 <math>\mu</math>L,Path length :0.030 to 1.0 mm auto-ranging, Light Source :Xenon flash lamp,Detector Type :2048-element CMOS linear image sensor</p> <p>Detection Limit :2 ng/<math>\mu</math>LdsDNA 0.06 (0.03) mg/mL BSA (IgG),Maximum Concentration : 27,500 ng/<math>\mu</math>LdsDNA,820 (400) mg/mL BSA (IgG),Photometric Range :0-550 A,Photometric Accuracy :3% at 0.97 A, 302 nm,Measurement and Data Processing Time :Less than 10 sec,Measurement Repeatability :0.002 A (1.0 mm path) or 1%CV, whichever is greater,SD of 10 individual measurements at 0.97 A, System Software : Must have embedded sensor and digital image analysis capability to monitor for bubbles and broken sample columns.Must support Blank, Auto-Blank, Measure and Auto-Measure options.Must deliver A260, A280, and purity ratio information A260/A280 and A260/A230 information for nucleic acid measurements.Must deliver A260, A280, and purity ratio information A260/A280information for protein measurements.Must be able to report background corrected absorbance measurements at260nm and 280nm.Must have technology that can identify contaminants in the sample and report corrected concentration, Pre-Programmed Methods :ssDNA, dsDNA, RNA, oligoDNA, igoRNA, microarray fluorescentlylabeled nucleic acid), Protein (A280), Protein A205, Protein colorimetric (Bradford, BCA, Lowry and Pierce™ 660), Proteins&amp; Labels (labeled proteins), OD600, Kinetics, Custom Methods. Connectivity :PC &amp; Local Control via USB port, Ethernet, Bluetooth and Wi-Fi3 Warranty :Two years, Installation Proof :The bidding vendor need to submit atleast 10 P.Os preferreably 5 each in last 2 years for Nanophotometer (Necessary Preconditioning Kit &amp; Performance verification kit should be provided with Instrument.)</p>	849600.00	<p><b>C ABHAYKUMAR AND CO 117, Hindustan Kohinoor Industrial complex, LBS Marg, Vikhroli (West), Mumbai 400083 Ph. 022-40764700</b></p>

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62	116	<u>Gel Documentation System</u>  <u>Make : Ependorf</u>	<p>System should have Image resolution &gt;4 mega pixels for resolving closely spaced bands on a gel or blot. Imaging system should have Automatic capabilities with Application driven, user selected or recalled by a protocol. Should have 100 % repeatability via recallable protocols. System should have pre-calibrated focus for any zoom settings &amp; sample height. Should have appropriate flat fielding correction automatically &amp; consistently applied to image data for every application. Versatile system to support wide range of applications like- Fluorescent dye like Sybr green, Sybr safe, Western blotting, 1-D, Dot Blotting, Nucleic acid detection, Quantitation etc. Should be capable to run stain free gels and blots. Should have true 12bit CCD camera. System can take max. Sample size 28 X 36 cm. System should have precalibrated &amp; optimized dynamic image flat fielding. It should universal dark hood &amp; upgradeable to chemiluminescence. Should have motorized zoom lens-f/1.2, 12-75mm with umerical feedback value to reduce the experimental variation - Capable of Optimizing, saving, and quickly recalling the imaging acquisition settings. Safe DNA Imaging without UV exposure- using the Blue Conversion screen to prevent damage from UV and preserve samples for downstream protein production. Reproducibly position or center the sample on the image platen by using gel alignment templates. Should come with 1 D analysis software with following features. Single mouse click from image capture to results and reports, very fast and efficient. Should have comprehensive automated quantitative analysis of proteins &amp; DNA samples in seconds. Intuitive and well organized (efficient) selection of workflows based on applications. 3D viewer. Absolute and Relative quantitation. Should calculate precisely continuous focus curves that are consistently and automatically applied for every zoom position and sample height. No user intervention for focusing. All calculations are done at setup, once and for all image captures. System should come with single software for acquisition and analysis. Minimum 10 users acquisition and analysis software to be provided along with the system.</p>	669500.00	<b>Eppendorf India Limited,</b> <b>Waman Patil Industrial Estate,</b> <b>Waman Patil Marg,</b> <b>Opp. Dukes Factory, Chembur,</b> <b>Mumbai 4000071</b> <b>Mob. 9372421680</b>
63	118	<b>PCR specifications</b>  <b>Make : Bio-Rad</b> <b>Model : T-100 Thermal Cycler</b>	<ul style="list-style-type: none"> <li>• Should have a maximum ramp rate Should have a sample capacity of 96x0.2ml tubes, 0.2ml tube strips or 1x96-well plate with Peltier heating and cooling. Should have gradient capability</li> <li>• Should have the feature of dynamic ramping (identical hold times) for all the 8 rows of a gradient.</li> <li>• Should have a temperature differential range of 1-25degC.</li> <li>• Should have intuitive 5.7" (14.5 cm) touch screen interface which can displays graphics in high resolution for easy programming.</li> <li>• The touch screen should be responsive for both gloved and ungloved fingers.</li> <li>• Should be capable of running reaction volumes from 1-100ul.</li> </ul>	246681.00	<b>Biolinx Labsystems Pvt. Ltd 203,</b> <b>Technocity, Plot No. X-5/3, Opp. Millennium business park,</b> <b>Mahpe, Navi Mumbai 400710 Ph. 022 27786081</b>


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			<ul style="list-style-type: none"> <li>• of 4 degC/second with an average ramp rate of 2.5degC.</li> <li>• Should have a temperature range of 4-100 deg C</li> <li>• Should have a gradient range of 30-100 deg C</li> <li>• Should have a temperature accuracy and uniformity of <math>\pm 0.5</math> deg C</li> <li>• Should have a memory of &gt;500 programs with further expansion through a USB Flash drive for transfer of files.</li> <li>• Should have block and calculated temperature control modes.</li> <li>• The software should have exportable Run logs and system error logs</li> <li>• Should have quick boot up time of not more than 1 min.</li> <li>• Should be quiet in operation.</li> <li>• System should have built in library of standard protocols for long PCR, fast PCR, reverse transcription PCR etc.</li> <li>• Should have the feature of "instant incubation" to keep samples at constant temp. for ligation and restriction digests.</li> <li>• Should have power save mode.</li> <li>• Should be compatible with all kind of plastic consumables and reagents specially reusable sealing Mats.</li> </ul>		
64	119	<b>Mini DNA Gel Electrophoresis System.</b>  <b>Make : BioEra life Science pvt. Ltd. Pune.</b> <b>Model : SEP-170501</b>	Agarose Gel Electrophoresis system with 7x7CM UV transparent Gel trays. System should also accommodate 7X10CM Gel trays. Gel trays should have Fluorescent rulers. System should come with Casting gates to cast the gels in the system. System should come with Color coded labeled electrodes and labeled base for correct positioning of the lid on the base. System should come with easy to remove electrode for easy cleaning. 8 well and 15 well comb, Other sizes of combs can be quote. System should run up to 30 samples. with minimum two combs per gel Buffer volume: approx 270 mL.	16000.00	<b>BIOERA LIFE SCIENCES PVT LTD BIOERA PARK, SURVEY NO. 125, MUMBAI-BANGALORE HIGHWAY, TATHAWADE, PUNE 411033, MOB.+91 9822773256</b>
65	120	<b>Midi Gel Electrophoresis System.</b>  <b>Make : BioEra life Science</b>	UV Transparent Gel tray size 15 X 10 cm , Should come with UV Transparent gel tray with an integrated fluorescent ruler & safety lid. Should be having universal gel caster to fit different size of gel tray System should come with 15 well and 20 well combs. Combs to fit virtually every need-multichannel pipette compatible	22000.00	<b>BIOERA LIFE SCIENCES PVT LTD BIOERA PARK, SURVEY</b>

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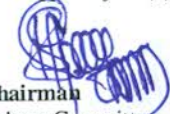
  
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		pvt. Ltd. Pune. Model : SEP-170502	combs, fixed height combs, adjustable height combs, and preparative combs. System should accommodate other gel tray size like 15 x 7 cm, System should run up to 60 samples. with minimum two combs per gel. Buffer volume: approx 650 mL. System should come with Color coded labeled electrodes and labeled base for correct positioning of the lid on the base. System should come with easy to remove electrode for easy cleaning		NO. 125, MUMBAI- BANGALORE HIGHWAY, TATHAWADE, PUNE 411033, MOB.+91 9822773256
66	121	Maxi Gel Electrophoresis System .  Make : BioEra life Science pvt. Ltd. Pune. Model : SEP-170503	UV Transparent Gel tray size 15 X 25cm , Should come with UV Transparent gel tray with an integrated fluorescent ruler& safety lid. Should be having universal gel caster to fit different size of gel tray like 15x10cm,15x15cm,15x20cm,15x25cm.System should come with 15 well and 20 well combs. Combs to fit virtually every need-multichannel pipette compatible combs, fixed height combs, adjustable height combs, and preparative combs. It could accommodate other gel tray size like 15 x 10 cm, 15 x 15 cm and 15 x 20 cm. System should run up to 120 samples, with 1 to 4 combs per gel. Buffer volume: approx 1 L and provided with port for buffer recirculation. System should come with Color coded labeled electrodes and labeled base for correct positioning of the lid on the base. System should come with easy to remove electrode for easy cleaning.	30000.00	BIOERA LIFE SCIENCES PVT LTD BIOERA PARK, SURVEY NO. 125, MUMBAI-BANGALORE HIGHWAY, TATHAWADE, PUNE 411033, MOB.+91 9822773256
67	122	Power Supply for DNA and Protein Electrophoresis systems  Make : BioEra life Science pvt. Ltd. Pune. Model : BE/VPP/1212	<ul style="list-style-type: none"> <li>• Volts : 10-300 V</li> <li>• Current : 4- 400mA</li> <li>• Power : 75 W</li> <li>• Type of output : Constant current, constant Voltage with automatic cross over.</li> <li>• Timer: 1-999 min.</li> <li>• No of output : 4 sets in parallel.</li> <li>• Safety features like No load detection, sudden load change detection, overload/short circuit detection, over voltage protection.</li> <li>• Operating conditions: 0 – 40degree C; 0 to 95% humidity.</li> <li>• Display: 3 digit LED</li> <li>• System should be stackable.</li> </ul>	47000.00	BIOERA LIFE SCIENCES PVT LTD BIOERA PARK, SURVEY NO. 125, MUMBAI-BANGALORE HIGHWAY, TATHAWADE, PUNE 411033, MOB.+91


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68	126	<b>Sonicator</b>  <b>Make : PCI Analytics Pvt. Ltd. Bhandup West Mumbai</b> <b>Model : PKS-250F</b>	1) Microprocessor based, programmable ultrasonic processor. Features include pulse mode and a digital display of both wattage and joules for standard cell disruption, DNA/RNA shearing, homogenization and many other applications. System should come with Generator, Converter, 1/8" (3mm) diameter probe with processing volume 500 ul to 15 ml and amplitude intensity level 180 (high), Power cable, Converter cable, Wrench set 2) <b>Programmable operation:</b> Set time and amplitude for hands free operation 3) <b>Pulse mode:</b> Prevent heat buildup in temperature sensitive samples 4) <b>Digital amplitude / intensity control:</b> Output intensity can be set from 20-100% 5) <b>Elapsed time indicator:</b> Displays duration of sonication 6) <b>Display of wattage and joules:</b> Real-time energy monitoring 7) <b>Overload protection:</b> Prevents damage to circuitry if a fault occurs 8) <b>RoHS compliant:</b> Uses lead free components Power Rating: 125 watts Frequency: 20 kHz Programmable Timer : 10 memories plus sequencing Programmable Timer: 10 hours Adjustable Pulse On/Off: 1 second to 1 minute System should come with Sound enclosure with converter holder and support stand.	265500.00	<b>HBS Technologies</b> <b>c/o Hiralal Gour,</b> <b>469/c, B/H Ranjan</b> <b>Bichayat Kendra,</b> <b>Dhondba Chowk,</b> <b>Hansapuri,</b> <b>Nagpur-440018.</b>
69	127	<b><u>SDS PAGE gel</u></b> <b><u>Electrophoresis systems</u></b>  <b>Mini size Electrophoresis system (8.3 X 7.3 cm)</b>  <b>Make : Bio-Rad</b> <b>Model : Mini-Protean RTetra</b>	<ul style="list-style-type: none"> <li>• Versatility: Supports both Precast and handcast gel runs.</li> <li>• Cell runs 1 to 4 gels within 45 min</li> <li>• Easy setup with glass plates having permanently bonded spacers guarantee</li> <li>• Perfect alignment and leak free casting</li> <li>• Casting frames with simple cam closure provide precision alignment on any should be no requirement of any clamps to hold the gels while casting.</li> <li>• Upgradable to western blotting.</li> <li>• Should supply with 1.0 mm five integrated spacer plates and 5 thin plates.</li> <li>• Should supply with 5 combs of 1.0 mm</li> <li>• Sample loading guide to prevent skipped or repeated loading lanes</li> </ul> Side by side casting stand to cast 2 gels simultaneously <b>Power Supply :</b> <ul style="list-style-type: none"> <li>• Volts : 10-300 V</li> <li>• Current : 0- 400mA</li> <li>• Power : 75 W</li> </ul>	135929.00	<b>Biolinx Labsystems</b> <b>Pvt. Ltd 203,</b> <b>Technocity, Plot No.</b> <b>X-5/3, Opp.</b> <b>Millennium</b> <b>business park,</b> <b>Mahpe, Navi</b> <b>Mumbai 400710 Ph.</b> <b>022 27786081</b>

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			<ul style="list-style-type: none"> <li>• Type of out put : Constant current, Voltage</li> <li>• Timer : 1-99 hrs</li> <li>• Programmable</li> <li>• No of out put : 4</li> <li>• Safety features like No load detection, sudden load change detection, overload/short circuit detection, over voltage detection.</li> <li>• Operating temperature: 0 – 40degree C</li> <li>• Display: 3 digit LED</li> </ul>		
70	128	<b>Wet Transfer blotting systems (Mini Blotting System)</b>  <b>Make : Bio-Rad</b> <b>Model : Mini-Frans-Blot R Electrophoretic Transfer Cell.</b>	<ul style="list-style-type: none"> <li>• System should support wet transfer</li> <li>• Should include 2 gel holder cassette, 4 fiber pads, modular electrode assembly, ice free cooling unit,</li> <li>• Gel Size 10x7.5 cm</li> <li>• System should not require buffer more than 450ml</li> <li>• 2gel per blot</li> <li>• Transfer time should be around &lt; 1 hr</li> <li>• Electrode should be 4 cm apart for strong electrical field and efficient protein transfer</li> <li>• System should have color coded cassettes and electrode for proper orientation of gel</li> <li>• Blue cooling unit to absorb the heat generated during rapid transfer.</li> </ul> <b>Power Supply</b> <ul style="list-style-type: none"> <li>• Volts : 10-300 V</li> <li>• Current : 0- 400mA</li> <li>• Power : 75 W</li> <li>• Type of out put : Constant current, Voltage</li> <li>• Timer : 1-99 hrs</li> <li>• Programmable</li> <li>• No of out put : 4</li> <li>• Safety features like No load detection, sudden load change detection, overload/short circuit detection, over voltage detection.</li> <li>• Operating temperature: 0 – 40degree C</li> <li>• Display: 3 digit LED</li> </ul>	131360.00	<b>Biolinx Labsystems Pvt. Ltd 203, Technocity, Plot No. X-5/3, Opp. Millennium business park, Mahpe, Navi Mumbai 400710 Ph. 022 27786081</b>
71	132	<b>Water Jacketed CO<sub>2</sub> Incubator</b>  <b>Make : ESCO Cel Culture R</b> <b>Model : CCL-170B-8-UV-WJ</b>	<ol style="list-style-type: none"> <li>1. Range 5degC above ambient to 55°C</li> <li>2. Temperature Uniformity <math>\pm 0.2^{\circ}\text{C}</math></li> <li>3. Interior Volume : Minimum 184 liters or more</li> <li>4. CO<sub>2</sub> : TC sensor 0-20%. Control, Range Better than <math>\pm 0.1\%</math>.</li> <li>5. TC sensor warranty 5 years.</li> </ol>	504228.00	<b>ESCO BIOTECH PVT LTD, 111 - 114, Agrawal B28, Commerce complex Dhruv Park.</b>


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			6. Readability and Setability 0.1% 7. Humidity : Ambient to 95% @ 37 °C (98.6F) 8. Design – triple wall construction water jacket. Heated door with sealed door. Should have humidity Pan of 3Lit 9. All control and measurement probes and sensors should be located inside the culture chamber to provide true and accurate values and foster faster parameter recovery times. Probes and sensors should not be remotely located outside the chamber. 10. The incubator should include a standard USB port with software for data downloading and reporting in Windows Excel format. 11. Interior : Shiny, stainless steel, 100% coved corners for easy cleaning, reduced chance of harboring contamination in the corners. 12. System should be supplied with validatable 100% HEPA filtration, which should ensures that Class 100 air quality is achieved within five minutes of the door closing. 13. The unit should be provided with high quality microbiological filters on all gas inlets, outlets and sample ports, to eliminate the potential of contamination entering the chamber from these points. 14. The incubator should feature on-board graphics capability, via touch screen controller, enabling users to obtain historical performance by parameter or specified time periods to allow greater understanding of culture growth dynamics and usage patterns, enhancing research results. 15. The interface should log and displays all user interactions with the incubator (eg. door openings, parameter changes) facilitating the identification of important changes in the culture environment.		Kanchpada, Off. Link road, Malad (West), Mumbai 400064 Ph. 022 28443636
72	134	<b>Washer without dryer</b>  <b>Make : Miele &amp; Cie.KG</b> <b>Model : PG8504</b>	Outer casing should be SS 305 AISI Washer should be under counter type. Machine should have: a) Electric door lock with hinged drop down type. b) Back-lit metal touch LCD display c) 2 nos.of door dispenser for powder & neutralising agent d) Buzzer, acoustic signals at end of programme e) Circulation pump, Qmax in l/min: should not be less than 500 l/min with auto speed adjustment. f) Built-in dual spray arm. g) No of programmes should be at least 7 & adjustable 2 nos.	698500.00	Biolinx Labsystems Pvt. Ltd 203, Technocity, Plot No. X-5/3, Opp. Millennium business park, Mahpe, Navi Mumbai 400710 Ph. 022 27786081


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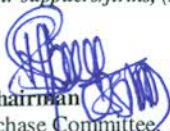
  
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			<p>h) Water connections: Atleast 2 with waterproof system</p> <p>i) Washer dimensions should be atleast 835 mm in height, 600 mm in width, 600 mm in depth, i.e, under counter type.</p> <p>j) Washer with built-in heater but heater elements should be outside wash chamber</p> <p>k) Wash cabinet should be seamless OR without joints</p> <p>l) Unit should be equipped with in-door salt container</p> <p>m) Multi component filter system</p> <p>n) Rear docking system for trolley connection enhancing maximum usage space.</p> <p>o) Washer should have 1 basic loading trolley &amp; can accommodate easily removable injection trolleys &amp; supports</p> <p>Washer should be capable of washing variety of glassware load on a single washing level such as pipettes &amp; other 14 to 30 narrow necked glassware on single level of washing, HPLC vials, test tube with other 12-30 narrow necked glassware on a single level OR beakers &amp; 12-15 narrow necked glassware on a single washing level.</p> <p>Washer should be capable of 2 level washing system with add on trolley in future.</p> <p>Washer power requirement: 230 VAC</p>		
73	136	<p>Double Glass Door Pharmacy Refrigerators</p> <p><b>Make : Thermo Scientific Comp.</b></p> <p><b>Model : Lab regrigenator PLR-386</b></p>	<ul style="list-style-type: none"> <li>• System's microprocessor should be able to manage set point and actual conditions to provide the highest level of security for the stored product</li> <li>• During power failure digital display should dim to conserve backup battery</li> <li>• System should have a distinct power failure icon which should get illuminated when main power is interrupted</li> <li>• Adjustable temperature control, range +1°C to +8°C, factory pre-set to +4°C.</li> <li>• 300-330L with 8 adjustable stainless steel drawers.</li> <li>• Large digital display, resolution to within 0.1°C</li> <li>• Glass doors with double pane construction and should eliminate condensation on inner side; spring-loaded closures should be available for 90 deg stay open feature.</li> <li>• System should have hermetically sealed refrigeration compressor, air-cooled condenser and automatic condensate removal.</li> <li>• System should offer an efficient, high-capacity air circulation system to optimize top-to-bottom temperature uniformity, accelerate temperature recovery following door openings.</li> <li>• System should have CFC-free refrigerants.</li> </ul>	263768.00	<p><b>Biolinex Labsystems Pvt. Ltd 203, Technocity, Plot No. X-5/3, Opp. Millennium business park, Mahpe, Navi Mumbai 400710 Ph. 022 27786081</b></p>


  
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			<ul style="list-style-type: none"> <li>• Should have High-density, CFC-free urethane foam insulation.</li> <li>• Should have Positive, forced-air circulation to maintain temperature uniformity at all shelf levels and should help in quick recovery after door opening.</li> <li>• Should have Heavy duty, industrial-grade, hermetically sealed compressors</li> <li>• Should have features of Automatic condensate removal so that no drain lines are required</li> <li>• Alarm silence, ringback and automatic reset functions</li> <li>• Battery backup for control panel during power failure</li> <li>• Should have Advanced defrost sensor for managing the defrost cycle.</li> <li>• Audible/visual warnings for over temperature, under temperature and power failure, with visual status reports on critical functions.</li> <li>• Smooth scratch resistant painted interior and exterior surfaces for easy cleaning.</li> <li>• Ext Dimensions HxDxW inches: 77.5 x 35.5 x 56.5</li> </ul>		
74	137	<b>Deep Freezer(-80oC)</b>  <b>Specifications</b>  <b>Make : Bio-Rad</b> <b>Model : Deep Freezer -80C</b> <b>(8960086V)</b>	<ul style="list-style-type: none"> <li>• Type: Upright</li> <li>• Capacity: 800-850 Liters , Vial capacity 60,000 to 70,000</li> <li>• Temperature range:-50°C to -86°C</li> <li>• Operating temperature: Programmable upto -86°C with 1°C increments, even at ambient temperature of 30°C</li> <li>• Internal structure: Compartments with painted stainless steel shelves of adjustable height, insulated inner doors to minimize cold air loss when external door is opened</li> <li>• Freezer should be painted with high-impact, scratch resistant powder coat finished interior and exterior to ensure long-term viability and maximum interior temperature uniformity.</li> <li>• Prevention of vacuum formation: Heated air vent to prevent vacuum formation during door openings and front panel air filter.</li> <li>• Alarms: Audible and visible alarms for temperature, power failure, system failure, probe failure, clean filter, door.</li> <li>• Refrigerant: CFC FREE, HCFC FREE non flammable Hydrocarbons refrigerants.</li> <li>• Touch-screen user interface for providing access to vital freezer information including event log, settings and user profiles. Store up to 15 years worth of temperature and event data on the on-board controller.</li> <li>• Vacuum Insulation Panel Technology to increase the internal capacity of</li> </ul>	726793.00	<b>Bioline LabSystems</b> <b>Pvt. Ltd 203,</b> <b>Technocity, Plot No.</b> <b>X-5/3, Opp.</b> <b>Millennium</b> <b>business park,</b> <b>Mahpe, Navi</b> <b>Mumbai 400710 Ph.</b> <b>022 27786081</b>


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			<p>the cabinet.</p> <ul style="list-style-type: none"> <li>• Outer door gaskets: heated gasket should provide security and protection, maximizing cabinet temperature and eliminating frost build-up.</li> <li>• Inner doors: polystyrene insulated inner doors should help in maintaining cabinet temperature during openings. At least four inner doors with three to four shelves.</li> <li>• Certification/compliance/Regulatory approval: Machine should be cULus and CE certified/ listed.</li> <li>• There should be provision for easy to remove washable filters to increase refrigeration performance.</li> <li>• Single outer door and single hand door handle operation with integrated key lock.</li> <li>• Security features: Key lock, Padlock and optional at least two access key cards.</li> <li>• Power management system should protect voltage variation and should be easily accessible through the touch-screen display.</li> <li>• Freezer should not warm to -50°C from -80°C set point in under 280-320 minutes during a power failure in a 20°C room.</li> <li>• Should have USB port</li> <li>• Energy Consumption not more than 12kw-hr/day</li> </ul>		
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 Central Purchase Committee,  
 Dr. PDKV, Akola.