e-Government Procurement (e-GP)
NOTICE INVITING TENDER

The Director, Forensic Science Laboratory, Kerala Police Department, Government of Kerala invites online bids from reputed manufacturers/authorized dealers or reputed vendors for the under mentioned Equipment for for District Forensic Labs at Kollam and Malappuram. The bidders should comply with the following general conditions in addition to the additional conditions of the instant tender.

General

1. The Bidder should be a reputed Original Equipment Manufacturers (OEM) or authorized dealer of OEM, who is having an Authorization Certificate from the OEM to participate in the tender floated by Kerala Police. Certificate from the OEM for sales and service, to be produced.
2. One bidder can not represent two suppliers/OEMs or quotes on their behalf in a particular tender.
3. The OEM/Bidder should have a well equipped service centre functioning in India (preferably in Kerala) to cater to immediately after sales requirement; copy of Service Centre details must be enclosed along with Tender document. (Preferably bidder should have a Service Centre in Kerala/South India).
4. A reputed vendor can participate in the tender provided the vending outfit is functioning in the market for at least 10 years.

5. The Bidder should have valid GST registration. Copy of GST registration certificate should be enclosed along with the tender.

6. The bidder should have valid PAN/Taxation Index Number. Copy of PAN/Taxation Index Number allocation letter should be enclosed along with the tender.

7. The Bidder must fulfil the following minimum qualification criteria to prove the techno-commercial competence and submit the documents in support thereof:
   a). Valid Authorization letter from the OEM to attend this particular Tender.
   c). Last 3 year's financial status of the Bidder's/P&L and Balance Sheet/audit report of last 3 years.
   d). The bidder (authorized dealer/distributor) should have the dealership/distributionship for at least 3 (three) continuous consecutive years with the OEM.
   e). The Bidder has to submit a Warranty Certificate along with invoices.
   f). In case of a proprietary item, a certificate by the OEM to be attached.

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Name of Equipment</th>
<th>Quantity Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BOD INCUBATOR</td>
<td>2.00</td>
</tr>
<tr>
<td>2</td>
<td>Density Gradient Tube with Stand</td>
<td>2.00</td>
</tr>
<tr>
<td>3</td>
<td>Mitutoyo Micrometer (Screw Gauge)</td>
<td>2.00</td>
</tr>
<tr>
<td>4</td>
<td>Mitutoyo Absolute Super Vernier Caliper</td>
<td>2.00</td>
</tr>
<tr>
<td>5</td>
<td>Hot plate</td>
<td>2.00</td>
</tr>
<tr>
<td>6</td>
<td>Fluorescent Microscope</td>
<td>2.00</td>
</tr>
<tr>
<td>7</td>
<td>Water Bath with Gabled Lid</td>
<td>2.00</td>
</tr>
<tr>
<td>8</td>
<td>Double Distillation Unit</td>
<td>2.00</td>
</tr>
<tr>
<td>Item</td>
<td>Under mentioned Equipments for for District Forensic Labs at Kollam and Malappuram</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Tender No. &amp; Date</td>
<td>TENDER NO 01/2020-21 Dated 04/05/2020</td>
</tr>
<tr>
<td>2</td>
<td>Item</td>
<td>Under mentioned Equipments for for District Forensic Labs at Kollam and Malappuram</td>
</tr>
<tr>
<td>3</td>
<td>Quantity</td>
<td>List attached</td>
</tr>
<tr>
<td>4</td>
<td>Estimated Amount</td>
<td>Rs. 26 Lakhs</td>
</tr>
<tr>
<td></td>
<td>Tender Fees</td>
<td>Rs. 4890 + GST = Rs. 5770/-</td>
</tr>
<tr>
<td>---</td>
<td>-------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>6</td>
<td>Earnest Money Deposit</td>
<td>Rs. 26000/-</td>
</tr>
<tr>
<td>7</td>
<td>Date and time of publication of e-Tender</td>
<td>04/05/2020 06:00 PM</td>
</tr>
<tr>
<td>9</td>
<td>Date of submission of e-Tender</td>
<td>05/05/2020, 06:00 PM To 15/06/2020, 12:00 NOON</td>
</tr>
<tr>
<td>10</td>
<td>Last date and time for online submission of e-tender</td>
<td><strong>15/06/2020, 12:00 NOON</strong></td>
</tr>
<tr>
<td>11</td>
<td>Date and time of opening of e-Tender</td>
<td>16/06/2020, 3:00 PM</td>
</tr>
<tr>
<td>12</td>
<td>Place of opening</td>
<td>Forensic Science Laboratory, Thiruvananthapuram</td>
</tr>
<tr>
<td>13</td>
<td>Date, Time and Place of Technical Evaluation</td>
<td><strong>Will be informed later</strong></td>
</tr>
</tbody>
</table>
14. Bid Validity (Total Number of Days up to which the rates are to be firm): 180 days

15. Address of Tender Inviting Authority:
   Forensic Science Laboratory, Kerala, Vazhuthacaud, Thiruvananthapuram - 695010
   Ph: 04712721533
   e-mail: dirfsl.pol@kerala@gov.in
   Website: www.keralapolice.gov.in

9. Mode of submission of bids: - Online. All Bid documents shall be submitted only in online procedure through the e-GP website www.etenders.kerala.gov.in in their designated online covers. Details of covers are given separately. No other mode of submission shall be accepted and such tenders will be rejected outright.

10. Cover details: - No. of covers - 2. i) Technical Bid cum and Financial Bid. The CMC/AMC/ATS after warranty period also to be quoted in the Financial Bid. In the case of Foreign Equipments, the rate must be quoted in Indian Rupees. The documents to be uploaded under each online covers are specified in the website.

11. Downloading of e-Tender documents: - The tender document can be downloaded from the e-GP website www.etenders.kerala.gov.in from the date and time of publication of e-tender onwards to last date and time for online submission of e-tender. Downloading of tender documents will not be possible after the date specified above.

12. Submission of e-Tender documents: - The digitally signed tender document and other specified documents shall be submitted online through the e-GP website www.etenders.kerala.gov.in well in advance before the last date and time mentioned above. No submission shall be allowed after the last date mentioned above.

13. Payment of Tender Fees: - A non-refundable tender fee shall be paid in online mode through the e-GP website www.etenders.kerala.gov.in at the time of
bid submission. No other mode of payment shall be accepted. **The tenders of bidders who do not remit fees through online will be rejected outright.**

14. **Payment of Earnest Money Deposit (EMD):** - The EMD shall be paid in online mode through the e-GP website [www.etenders.kerala.gov.in](http://www.etenders.kerala.gov.in) at the time of bid submission. No other mode of remittance shall be accepted.

15. **Exemption from payment of EMD:** - Bidders who are registered with Store Purchase Department, Kerala or National Small Scale Industries Corporation Ltd., New Delhi (for the items tendered) are exempted from submission of EMD. Those bidders claiming exemption shall submit valid registration certificate from the SPD, Kerala or NSSIC, New Delhi.

**Tenders of bidders who do not remit EMD online or do not upload documental proof (digitally signed) for exemption of EMD will be rejected outright.**

16. **Withdrawal and re-submission of e-Tender:** - The Bidders are at liberty to withdraw the submitted tender/documents and to submit fresh tender/documents till the last date and time of submission of the e-Tender after which withdrawal/re-submission will not be allowed.

17. **Opening of e-Tenders:** - The bids shall be opened online through the e-GP website [www.etenders.kerala.gov.in](http://www.etenders.kerala.gov.in) at the Police Headquarters, Vazhuthacaud, Thiruvananthapuram on the date and time mentioned above in the presence of the Bidders/ authorized representatives who wish to attend at the above address. If the tender opening date happens to be a holiday or non-working day due to any valid reason, the tender opening process will be done on the next working day at the same time and place specified. Any change in the opening date/time/venue due to other reasons shall be informed by way of Corrigendum published in the e-GP website. The Technical Bids will be evaluated by a Technical Evaluation Committee and those that do not conform to the specifications or to the satisfaction of the Committee will be rejected. The financial bids of the Technically qualified Tenderers only will be considered for opening. The date of opening of financial Bids will be intimated to the concerned technically qualified tenderers, over phone/Fax/e-mail. This will be within 7 to 10 days of evaluation of technical bid.

18. **Technical Evaluation:** - All tenderers who quote for the supply of above equipment are required to be ready for live demonstration to be held in Forensic Science Laboratory, **TVPM and the date of the venue which will be intimated in due course. In the event of firms not able to show live demonstration, they need to convince the Technical Evaluation Committee about such inability and resort to documentary/power point presentation with original product brochures/CDs/scale models/videos/ slide shows etc. to the utmost satisfaction of the Technical Evaluation Committee.**
19. All Bidders who participate in e-tender should produce hard copies of all relevant documents related to e-tender at the time of technical evaluation, without fail.

20. Note to Bidders:
   i. Bidders have to procure legally valid Digital Certificate (Class III) as per Information Technology Act, 2000 for digitally signing their electronic bids. Bidders can procure the same from any of the license certifying authority of India. For more details, please visit the e-GP website www.etenders.kerala.gov.in.

   ii. Bidders are advised to note the Tender_Id and Tender No. & Date for future reference.

   iii. All uploaded documents should contain the signature and the office seal of the bidder/authorized persons and should be digitally signed while uploading. Documents uploaded without digitally signing shall entitle rejection of the tender.

   iv. In the case of Foreign Equipments, the rate should be quoted in Indian Rupees. Preference will be given to those who are ready to supply the item without opening Letter of Credit. Ordinarily, no advance payment will be made for procuring the above item. In case advance payment has to be made, a clear case has to be made out by the Tenderee. However this will be only on extraordinary circumstances.

   v. For obtaining Digital Signature Certificate and help on e-tendering process, contact Kerala State IT Mission, e-Government Procurement PMU & Helpdesk, Basement floor of Pension Treasury Building, Uppalam Road, Statue, Thiruvananthapuram; Ph: 0471-2577088, 2577188; Toll free no: 18002337315; e-mail: etendershelp@kerala.gov.in; Website: www.etenders.kerala.gov.in on all government working days from 9:30 am to 5:30 pm.

   vi. The Director, Forensic Science Laboratory is empowered to reject any tender without assigning any reason.

   vii. For any clarifications regarding the terms and conditions in this tender notice or the tender document, please contact Director, FSL, Manager FSL, Thiruvananthapuram – 10 on all Government working days from 10:30 am to 5:00 pm. (Ph. No. 0471-2722136)(Ph. No. 0471- 2722155)

**NOTE:** Bidders are advised to go through the conditions in the notice inviting tender and the tender document carefully and comply them to avoid outright rejection of their tender.
For any litigation relating to this order, the jurisdiction will be Thiruvananthapuram City.

Sd/-

DIRECTOR
FORENSIC SCIENCE LAB
1. **BOD INCUBATOR**

i. The chamber should be made of Stainless Steel and should be easy to clean

ii. The chamber external housing should be made of textured stainless Steel

iii. The internal volume should be > 50 Litres. /110 Litres

iv. The temperature range should be Ambient less 20 Deg C to 70 Deg C. The unit should be able to reach 5 Deg C with an ambient temperature of 25 Deg C

v. The temp variation in time at 37 Deg C should be < +/- 0.2 Deg C or better and temp uniformity should be < +/- 0.5 Deg C or better.

vi. The unit shall be fitted with minimum 1 Nos Stainless Steel grids and there should be facility to accommodate total of 4 or more grids/shelves

vii. The outer door should be insulated and should be made of Stainless Steel and the inner door should be made of glass.

viii. The system should use employ energy saving Peltier based Heating and cooling system

ix. The controller should have a indication / setting accuracy of 0.1 Deg C or better.

x. The unit should be equipped with a adjustable over temperature protection controller class 3.1 or a adjustable temp limiter class 2 and the same should be selectable on the display

xi. The unit should have 1 independent PT 100 sensor DIN Class A with 4 wire circuit

xii. The controller should have touch panel controller and the internal memory should be capable of storing the test data for app 8 years or more.

xiii. The controller should have facility to be recalibrated without connecting to an external PC

xiv. The unit shall be equipped with a Ethernet interface and necessary software to link the PC to the machine for downloading the internal data should be provided.

xv. The controller should have a facility to display the temperature in either Deg C or Deg F as and when required

xvi. It should be possible to set all the parameters via the touch panel control

xvii. In the event of an power failure the programme data should be stored

xviii. The unit shall be equipped with standard factory calibration certificate at + 10 Deg C and + 37 Deg C

xix. The unit should be able to work with 230 V +/- 10 % , 50 Hz Supply and the power consumption should not exceed 175 watts

xx. The unit shall carry a warranty of 2 years from the date of commissioning.

xxi. The manufacturer must have a management system certified to ISO 9001.
xxii. The necessary operation manual should be provided along with the machine.
xxiii. The operational training shall be given at the time of commissioning
xxiv. The packing data and weight details shall be provided along with the offer.
xxv. The firm shall submit necessary catalogues, product data sheet and a point wise technical compliance statement along with the offer.

2. Density Gradient Tube with Stand

i. Tube made up of Borosilicate glass
ii. Length of the tube: 30 cm
iii. Inner diameter of the tube: 5mm

3. Mitutoyo Micrometer (Screw Gauge)

i. measuring range: 0 to 25 mm
ii. Accuracy: 0.01mm±3µm
iii. Graduations: 0.001mm

4. Mitutoyo Absolute Super Vernier Caliper

i. Waterproof and solar powered, with enhanced charge functions
ii. Measuring range: 0 to 20 cm
iii. Length of the upper jaws: 20 to 25mm
iv. Length of the lower jaws: 45 to 50 mm
v. Thickness of jaws: 3.5mm
vi. Resolution: 0.01mm
vii. Accuracy: ±0.02mm
viii. Power supply: Solar cell
ix. Display: LCD

5. Hot plate
Power: 1000 W
Voltage: 220V frequency 50Hz
Material: Stainless steel
Max surface temperature: 300 °C
Size Appr. : 10 x 12 inch

6. Fluorescent Microscope Specification

i. The optical system should be of color correction for infinity with antifungal coating. Sturdy stand of anti rust material with long life built-in power supply LED illumination min 50000 hrs. life provides cool light good for live specimen with input voltage from 110-240V, 50Hz.

ii. Should provide a comfortable user sit in position for reducing user stress.

iii. 5 or 6 position objective nose-pieces.

iv. 3 position Trinocular head with 10X22 m FOV eyepieces dipole displacement (+5 to -5) upper eyes lid (pair) intra with inter papillary distance of at least 50 –70 mm adjustable to accommodate observer height.

v. Co-axial coarse and fine focusing on rack and pinion. Tension adjustment control provided.

vi. Ultra hard Ceramic stage.

vii. Universal turret type swing-out condenser for bright field, dark field, phase contrast studies with N.A. 0.9-1.25.

viii. Objectives:

   Infinity plan achromatic 2/2.5x

   Infinity plan achromatic 5x NA 0.12 WD>11.5 mm

   Infinity plan achromatic Phase 10x NA 0.25 WD> 11.5 mm

   Infinity Plan apochromatic Phase 20x NA 0.50 WD> 1.1mm

   Infinity Semiplan apochromatic phase 40x NA 0.80WD 0.40mm
Infinity Semiplan apochromatic phase100x oil NA 1.30 WD > 0.17mm.

ix. Epi fluorescence illumination system and 100 W mercury illuminations, filter blocks for UV, blue and green excitation. The system should have filter blocks on a turret.

x. Polarizer and for transmitted light.

xi. Computer requirement: PC workstation with Core i5 processor, CPU, 19" or above LCD/TFT Monitor, 1 TB HDD, DVD Read/Write, 8 GB RAM, Keyboard, Mouse.

xii. One additional mercury halogen lamp.

xiii. The unit shall be capable of being stored continuously in ambient temperature of Upto 50deg C and relative humidity of 15-90%

xiv. Power input to be 230 +/-10% V AC, 50Hz fitted with Indian plug

xv. UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up.

xvi. Certified to be compliant with Electrical Safety Standard for Medical Equipment IEC 60601-1-1 OR equivalent BIS OR international standard for electrical safety.

xvii. User/Technical/Maintenance manuals to be supplied in English.

xviii. List of Equipment available for providing calibration and routine preventive Maintenance Support.

xix. Digital Camera: Fire wire digital camera with the following features: Recent model with 7 mega pixels CCD camera with appropriate lens system mounted.

---

7. Water Bath with Gabled Lid

i. Capacity 10-15 Lit

ii. Temperature range ambient +5 to 99.9°C

iii. Control accuracy at 37 is ±0.3°C.

iv. Resolution: 0.1°C

v. Uniformity: 37 is ±0.3°C.

vi. Timer upto 9999 min
vii. Fully stainless steel GMP Construction.
viii. Leak free inner seamless die pressed chamber.
ix. External matt and internal glossy - Full SS 304 construction.
x. PID Temperature controller.
xi. Illuminated Rocker switch for On / Off
xii. Safety Alarm for floating overshoot, Dry run
xiii. Accessories: Weight rings for the flask.
xiv. Warranty- 3 years

8. Double Distillation Unit
i. Double Distillation Unit with Buzzer Alert
ii. Water Still with built-in safety having Quartz Heater, Borosilicate Boiler & Condenser
iii. Capacity: 2.5 Lit/Hr
v. Teflon Screw Cock – For in-situ cleaning and draining of the boiler.
vi. Screw Thread Connectors - For Easy installation and for avoiding breakage of Glass.
vii. Pressure Temperature Switch – Which Switch Off the unit if the water in the boiler falls below the water.
viii. One submersible water pump for connecting with the condenser for avoiding water wastage (0.25 HP)
ix. The output water should meet the following specifications.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Conductivity</td>
<td>0.8 – 1.00μS/cm</td>
</tr>
<tr>
<td>pH</td>
<td>6.5 – 7.0</td>
</tr>
<tr>
<td>Distillate Quality</td>
<td>Pyrogen Free</td>
</tr>
<tr>
<td>Cooling Water</td>
<td>2 – 4 Ltrs./Min</td>
</tr>
</tbody>
</table>
Requirement

Minimum Pressure 3 psi

Dimension of each box 2 x (250 x 180 x 450) mm

9. Oven-Forced Convection (Rs- 70,000/-)

i. Capacity 90 – 100 Litre

ii. Temp range: Ambient +5 ºC to 250 ºC.

iii. Control accuracy: ±0.5 ºC.

iv. Uniformity: ± 2.0 at 100.0 ºC

v. Minimum 2 No. of Shelves with height adjustable in 25mm steps.

vi. Glass window in-built into the door for easy viewing of samples.

vii. Should be Single moulded Chamber, (For easy Cleaning purposes)

viii. Automatic cut off of heater & blower when door opened.

ix. Digital PID temperature controller with timer, alarms and auto tuning.

x. Aero dynamic internal design for achieving horizontal air circulation.

xi. Solid and plain bottom without electricals.

xii. Outer body made of G.I Epoxy Coated

xiii. Inner body made of Stainless steel with clear bottom

xiv. Seamless round cornered edge of internal chamber ensures easy cleaning & prevents any leakage.

xv. CE certified.

xvi. Warranty- 3 years

10. Ducted Fume Hood (Rs- 3 lakhs)

i. External Size(W*D*H): 1840*800*2200 mm

ii. Internal Size(W*D*H): 1620*670*730 mm

iii. Work Surface Height:850mm

iv. Max Opening:520mm
v. **Air Velocity**: 0.3 ~ 0.8 m/s or better
vi. **Noise**: ≤ 60 dB or lower
vii. **Exhaust Duct**: PVC. Standard length: 4 meters, Ø300mm
viii. **LED Lamp**: 16W*1
ix. **UV Lamp**: Emission of 253.7 nanometers for most efficient decontamination
x. **Blower**: Built-in centrifugal blower; Speed adjustable
xi. **Front Window**: 5 mm toughened glass; Motorized: Height adjustable
xii. **Material**: Exterior: Cold-rolled steel with anti-bacteria powder coating;
     Interior: High grade melamine board with good acid and alkali resistance function; Work Table: Chemical resistant phenolic resin.
xiv. **Blower Capacity**: 2300 m³/h or better
xv. **Air Volume**: 1170-18000 m³/h or better
xvi. **Standard Accessories**: UV lamp*2, LED lamp, Watertap, Gastap, Watersink, Base Cabinet; Total load of 2 waterproof sockets: 500 W; 4 meter PVC Exhaust duct, pipe strap*2
xvii. **UV Lamp for Sterilization**.
xviii. **Top should be Resistant to weak acid and alkali**
xix. **Adjustable air speed**: 9 Levels.
xx. **Motorized height adjustable front window**.
xxi. **Microprocessor control system with LED display, with memory functions in case of power failure**.
xxii. **3 year warranty**

11. **Magnetic Stirrer with Hot Plate (Rs- 40,000/-)**
   i. **Number of stirring positions**: multiple
   ii. **Max. Stirring quantities up to 1 L**
   iii. **Heating temperature range**: 50 - 300 °C
   iv. **Set-up plate material should be Ceramic**
   v. **Set-up plate dimension**: 120 x 120 mm or similar
   vi. **Speed range from 100 to 1000 rpm or better**
vii. Heat output: 1000 W
viii. Exact temperature and speed setting via LED digital display
ix. Digital error code display
x. Motor rating input: 15 W
xi. Motor rating output: 1.5 W
xii. Max. stirring bar length: 50 mm
xiii. Heat control via LED
xiv. Heating rate (1 L H\textsubscript{2}O in H15): 5 K/min
xv. Heat control accuracy: 10 ±K
xvi. Speed control: scale 0 - 6
xvii. Bushing should be according to DIN 12878 for connecting a contact thermometer
xviii. Elevated control panel for protection against leaking liquids
xix. Protection class according to DIN EN 60529: IP 21
xx. Magnetic pellets with different size
xxi. Pellet retriever.
xxii. Warranty- 3 years

12. Centrifuge (Rs- 1 lakhs)
i. High Sped Research Centrifuge with maintenance free Brush Less Induction Motor
ii. Max. capacity not to be less than 400 ml
iii. Centrifuge should have a RPM not to be less than 20,000 RPM & RCF not to be less than 34,500xg.
iv. Variable Frequency Drive Advance Micro controller with soft touch key pad
v. Equipment should have LCD display for the easy operation.
vi. Display of RPM/ RCF Value, remaining time, Imbalance detection and safety cut off mechanism.
vii. User definable acceleration and deceleration, time setting in the range of 30 to 510 seconds
viii. 1 to 120 minutes with infinite mode and rotor selection.
ix. Solenoid safety lock, Lid with Gas spring for easy operation.
x. Sturdy and safe metal fabricated body
xi. Warranty- 3 years

ROTOR

i. 12 x 15ml Angle Rotor with lid, polypropylene tubes. Max. Speed 15000 RPM, Max. RCF 23670 xg,
ii. 8x 25 ml Angle Rotor with lid, polypropylene tubes. Max. Speed 15000 RPM. Max. RCF 24000 xg
iii. 4 x 50 ml Angle Rotor with lid, polypropylene tubes. Max. Speed 17000 RPM, Max. RCF 28600 xg

13. Bench Top pH Meter (Rs- 40,000/-)

i. pH Range: -2.000 to 16.000 pH
ii. Resolution: 0.01; 0.001pH; 0.1 mV
iii. Accuracy: ±0.01pH; ±0.002pH; ±0.2mV
iv. Calibration Points: 5 in standard mode; 3 basic mode
v. Temperature Compensation: ATC (-20.0 to 120.0°C; -4 to 248.0°F)
vi. Electrode Diagnostics: standard mode: probe condition, response time and out of calibration range
vii. Temperature range: from -20.0 to 120.0°C / -4.0°F to 248.0°F
viii. Resolution: 0.1°C; 0.1°F
ix. Accuracy: ±0.2°C; ±0.4°F
x. 5.5 inch display & capacitive touch pad
xi. 8 hrs. continuous battery back-up
xii. Data logging, PC Connectivity, USB Ports
xiii. Digital smart electrodes with built-in microchip to store information like sensor type, calibration information etc.
xiv. Meter Upgradable to D.O & EC is preferred 
xv. Equipment should supplied with Bench top docking station with electrode holder, USB cable, DC adapter, calibration solutions, pH 4, 7 & 10 and electrode cleaning solution. Instruction manual etc.
xvi. Warranty- 3 years

14. Laboratory Refrigerator (Rs- 40,000/-)
i. Temperature range: 1°C ~ 8°C
ii. Capacity not to be lesser than 500-1000 Lit.
iii. Minimum 5 nos. of shelves (Adjustable) required
iv. Double Door preferred.
v. Facility for locking the doors
vi. Microprocessor Controller
vii. Digital temperature display
viii. Equipment should be frost free / Static cooling
ix. Forced air cooling required
x. White exterior preferred
xi. Equipment should have Visual & Acoustic alarms
xii. Alarms should available for high / low temp, door open etc.
xiii. CFC free refrigerant
xiv. PUF insulation
xv. Lockable Castor wheels.
xvi. Suitable voltage stabilizer should provide
xvii. Minimum three year warranty.

15. UV Cabinet For Viewing TLC Plates (Rs- 15,000/-)
i. Cabinet with UV light Short Wave 254 nm and Long Wave 365 nm and One Flou.
   Lamp.

ii. Cabinet made of mild sheet, duly powder coated, provided with inspection hole,
    useful for viewing

iii. TLC plate under UV light of different wave lengths, equipped with one
     fluorescent tube for Inspection

iv. Provided with individual switch for each tubes.

v. One UV Protection goggle should be supplied

### 16. Table Top Weighing Balance

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>Capacity : 1500 g-1600 g</td>
</tr>
<tr>
<td>ii.</td>
<td>Resolution : 0.01 g or better</td>
</tr>
<tr>
<td>iii.</td>
<td>Repeatability : ±0.02 g or better</td>
</tr>
<tr>
<td>iv.</td>
<td>Linearity : ± 0.02 g</td>
</tr>
<tr>
<td>v.</td>
<td>Calibration : External</td>
</tr>
<tr>
<td>vi.</td>
<td>Pan Size : φ 128 mm or better</td>
</tr>
<tr>
<td>vii.</td>
<td>Display : LED digital display with touch pad</td>
</tr>
<tr>
<td>viii.</td>
<td>Response Time : &lt;3 Sec.</td>
</tr>
</tbody>
</table>