Sealed quotations/tenders are invited from manufacturers or their authorized dealers for the following items which should be sealed by the tenderers under sealed covers duly superceded on the terms and conditions mentioned below:

Dated: 02.02.2018

Civil Engg. Deptt. AMU

1. List of equipments with its specifications are enclosed with Annexure -I, Annexure-II, Annexure-III.  

Terms & conditions:

2. Make & Model, Rate and GST details must be clearly mentioned in the quotations/tenders.
3. Only typed quotations/tenders bearing GSTin No. on original letter head will be entertained and also provide HSN code on each item separately.
4. Manufacturer/Authorised dealer’s certificate must be attached with quotations/tenders.
5. Installation and commissioning will be the responsibility of the supplier and after sales service should be provided.
6. Cutting and over writing on quotations/tenders will not be accepted.
7. The equipment/instruments might be called for demo and approval. It is sole discretion of the department to approve or disapprove the quality.
8. Comprehensive on site warranty of 03 years.

(Prof. Mohammad Muzzammil)
Chairperson
Civil Engg. Deptt.
A.M.U., Aligarh

Enclosers: As above

[Signature]
Chairperson
Civil Engg. Deptt.
A.M.U., Aligarh

forwarded to Director, Computer Centre in uploading the tender notice along with Annanures!
# Annexure-I

Department of Civil Engineering  
A.M.U., Aligarh.  
Hydraulics Structure Section

<table>
<thead>
<tr>
<th>S.No.</th>
<th>ITEM DESCRIPTIONS</th>
<th>NO. OF UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Airphace meter (Dissolved Oxygen Meter/Datalogger)</strong>&lt;br&gt;Measurement of air/oxygen water concentration in open channel flow.&lt;br&gt;Channel width (0.50 to 1.0 m) &amp; Channel depth (0.50 to 1.0 m).&lt;br&gt;- Clear visible digital display, optical probe, battery operated&lt;br&gt;- Measures dissolved oxygen from 0 to 50.0mg/L and 0 to 100.0% oxygen plus temperature from 32 to 122°F (0 to 50°C)&lt;br&gt;- Automatic Temperature Compensation from 0 to 50°C via temperature probe sensor built into polarographic type oxygen probe&lt;br&gt;- Stores at least 99 readings manually and 20M readings via SD card&lt;br&gt;- Built-in PC interface&lt;br&gt;- Min/Max and Data Hold functions, Auto power off&lt;br&gt;- SD card, hard carrying case</td>
<td>01</td>
</tr>
<tr>
<td>2A.</td>
<td>Sieve set of 45 cm dia, GI Frame size any 7 from 1.0 cm to 10 cm</td>
<td>01</td>
</tr>
<tr>
<td>2B.</td>
<td>Sieve Shaker motorized gyratory for 45 cm dia sieve</td>
<td>01</td>
</tr>
<tr>
<td>3.</td>
<td><strong>Digital gauge</strong>&lt;br&gt;- The measurement of steady state water level surface for open channel flow&lt;br&gt;- Suitable for 30 cm to 100 cm wide flume&lt;br&gt;- Display least count 0.01 mm&lt;br&gt;- Battery operated</td>
<td>02</td>
</tr>
</tbody>
</table>

(Prof. Mohammad Muzzammil)<br>Chairperson

Chairperson<br>Civil Engg. Deptt.<br>A.M.U., Aligarh
# TECHNICAL SPECIFICATION

## PHOTOCOLORIMETER

<table>
<thead>
<tr>
<th>TECHNICAL DATA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Lamp</td>
<td>Light Emitting Diode (LED)</td>
</tr>
<tr>
<td>Wavelength Range</td>
<td>420 nm, 520 nm, 560 nm, 610 nm</td>
</tr>
<tr>
<td>Wavelength Selection</td>
<td>Automatic</td>
</tr>
<tr>
<td>Operating Mode</td>
<td>Transmittance (%), Absorbance and Concentration</td>
</tr>
<tr>
<td>Sample Cell Compatibility</td>
<td>1 inch round or 16 mm round (with adapter)</td>
</tr>
<tr>
<td>Data Logger</td>
<td>500 measured values (Result, Date, Time, Sample ID, User ID)</td>
</tr>
<tr>
<td>Enclosure Rating</td>
<td>IP67 (vial cover closed)</td>
</tr>
<tr>
<td>Battery Requirements</td>
<td>4, AA size alkali cells</td>
</tr>
<tr>
<td>Battery Life</td>
<td>6 months (typical) @ 5 readings a day / 5 days / week without backlight**. **Backlight usage will decrease battery life.</td>
</tr>
<tr>
<td>Display</td>
<td>Graphical display 240 x 160 pixel (Backlit)</td>
</tr>
<tr>
<td>User Interface Languages</td>
<td>English, French, German, Italian, Spanish, etc.</td>
</tr>
<tr>
<td>Interface</td>
<td>USB type Mini IP67</td>
</tr>
<tr>
<td>Dimensions</td>
<td>(H x W x D) 9.1 in x 3.8 in x 1.9 in (231 mm x 96 mm x 48 mm)</td>
</tr>
<tr>
<td>Weight 1.32 lbs. (0.6 kg) with</td>
<td>1.32 lbs. (0.6 kg) with battery</td>
</tr>
<tr>
<td>Make</td>
<td>HACH/WTW/MERCK or Equivalent</td>
</tr>
</tbody>
</table>

*Chairperson*

Civil Engg. Deptt.
A.M.U., Aligarh
**TECHNICAL SPECIFICATION**

**Automatic Nitrogen/Protein Estimation System**

Microprocessor Based Four Place Graphical Macro Block Auto sequencing Automatic PC Compatible Digestion System with digital LCD display (Suitable for plants, soils, water, food & feed, Fertilizers & pesticides)

* Aluminium Digestion Metal Block perfectly insulated with ceramic wool
* Heaters :Casted Aluminium Alloy Block Heaters for uniform heating and even digestion of samples
* Power : 1000 W
* Temperature Controller: Fuzzy logic Micro Processor based PID Controller
* Superior PC compatible Auto Sequencing features
* Microprocessor controls integrated programming of temperature and time
* Selectable Programs (Customizable): Auto Sequencing Features with 30 intelligent memory programs
  * 12 desirable sequence ramp / steps of time and temp. domain for each programme.
  * 360 Intelligent memory segments with intelligent software
* Direct USB port for PC/Laptop connectivity without need of Rs 232 or Rs 485 convertor port
* Auto acoustic signal (alarm) on completion of digestion
* Auto power off mode on completion of digestion
* Display : Bright Digital two line Alphanumeric LCD Digital Display of time and temperature
  * Display status : SV, PV, Program No. Step No., & timer
* Display Resolution : 0.1
* Alarm output : 3 alarm outputs with buzzer indication, additional relay. Special features of Advanced Reporting Software For Graphical representation
  * The advanced PC chart software performs Live graphical representation of time / temperature gradient.
  * Live Schematic Process flow feature
  * Live process view display of various stages with facility to have print options
  * Software enables multiple unit monitoring with multi user login feature
  * Software enables communication to optional Remote Control Module
* Unique Inbuilt software program suitable for micro nutrient, macro nutrient and trace element analysis
* Viton hose for diacid and triacid digestion System (3 mtrs)
* Temperature Control Range: Room temperature to 450 °C
* Temperature Indication: Digital Two line LCD Digital Display
* Temperature Accuracy / Precision : + 0.5 °C
* Temperature Setting: Anti corrosive chemical resistant Feather Touch membrane soft touch keys
* Auto Tuning facility of Temperature Controller.
* Digestion Time : 30 to 60 minutes depending upon type of sample
* Marked Borosilicate straight Macro digestion tubes (4 Nos.) with flaring finish Total volume (300 ml) working volume (250 ml)
* Tube Dimension: 300 X 42mm
* Stainless Steel Insert Rack (Tube Stand) to hold digestion tubes.
* Cooling Stand (Support Rack) to keep the insert rack after digestion.
* SS Exhaust Manifold System with teflon adoptors fitted on to a stainless steel rack
  * (Chemical and heat resistant)
* SS Manifold rack with polyamide insulted handle to keep the exhaust manifold system after digestion.
* Digital Timer: Range : 0-99.59 (Settable in hrs, min and seconds), Digital display of set time and actual time, Modes of operation: heater cut off mode & alarm mode
* Easy Auto Fix Spring Clamps to fix the manifold
* Suction Assembly: KJEO Flow Assembly with Giant Filter suction pumps (2 Nos.) for safe removal of acid fumes.
* Thermocheck slot for using external thermometer
* MS housing with Anti corrosive Powder coated finish
* At par with AOAC Methodology
* Electrical Requirement:220V/50Hz Ac mains.

_Signed_
Chairperson
Civil Engg. Dept
A.M.U., Aligarh
## TECHNICAL SPECIFICATION

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Relative Density Test Apparatus determines relative density of granular soils which do not respond well to Proctor moisture density tests. Maximum density is determined by placing soil in special molds and densifying using a vibrating table and surcharge. Minimum index density is determined by loose placement in the molds using special pouring funnels, scoop, or shovel, depending on size of soil particles. Equipment provided complete with 75 cm vibrating table, large and small mould set and weights, also included is dial indicator of 50x0.01mm</td>
<td>One</td>
</tr>
<tr>
<td>2.</td>
<td>Rock Core Cutting Machine for NX sample from large rock sample, electrical, with water tank, complete ready to use with core bit and barrel</td>
<td>One</td>
</tr>
<tr>
<td>3.</td>
<td>Core Cutting Apparatus suitable for NX sample electrical driven complete ready to use with easy core cutting</td>
<td>One</td>
</tr>
</tbody>
</table>

(Prof. Mohammad Muzzammil)  
Chairperson
Annexure-IV

Department of Civil Engineering
A.M.U., Aligarh
Concrete Laboratory

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Specification</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Digital Dial Guage Indicator 0.00 / mm x 25 mm of Standard manufacture like Baker, Aimil, Proceq etc.</td>
<td>One</td>
</tr>
<tr>
<td>2.</td>
<td>Digital Dial Guage Indicator .001 / mm x 50 mm of Standard manufacture like Baker, Aimil, Proceq etc.</td>
<td>One</td>
</tr>
<tr>
<td>3.</td>
<td>Hydraulic Jack System 50 ton, 100 mm lifts</td>
<td>One</td>
</tr>
<tr>
<td>4.</td>
<td>Hydraulic Jack System 50 ton, 100 mm lifts of standard quality</td>
<td>One</td>
</tr>
<tr>
<td>5.</td>
<td>Hydraulic Jack System 200 ton, 100 mm lifts of standard quality</td>
<td>One</td>
</tr>
<tr>
<td>6.</td>
<td>Hydraulic Jack System 10 ton, 100 mm lifts of standard quality</td>
<td>One</td>
</tr>
</tbody>
</table>

(Prof. Mohammad Muzzammil)
Chairperson
Civil Engg. Dept
A.M.U., Aligarh