

Government of Jammu and Kashmir  
Directorate of Agriculture Talab Tillo Jammu  
[www.diragriju.nic.in](http://www.diragriju.nic.in)

**Tender Notice**

Sealed tenders affixed with revenue stamps worth Rs.5/- (Rs. Fiveonly) are invited for and on behalf of Governor of J&K State from the reputed manufacturers/duly authorized dealers/Government undertakings and registered supplier for supply of laboratory items viz Laboratories Equipments/Instruments for fertilizer Quality Control Lab./Pesticide testing Labs/Soil testing labs.. for Agriculture Departments both at Jammu and Srinagar. The rates should be quoted F.O.R Jammu and F.O.R Srinagar (J&K) . The detailed specifications of laboratory materials to be supplied in reference to this NIT is Annexed herewith as annexure A, B,

S.No	Annex.	Name of item	Earnest Money (EMD)	Cost Tender documents
1	A and B	Instruments/Equipments	Rs.10000/-	Rs.500/-


**Terms & Conditions**

1.	The tenders should be sent or deposited in the office of Director Agriculture Jammu(Member secretary) by or before 17/08/2015 by 02.00 P.M through speed post / courier/ by hand. Tenders brought by hand shall be put in a TENDER BOX by the concerned tenderer in the office of the undersigned on any working day during office hours up to the said date and time. In case of any gazetted holiday falling on the last date of receipt of tenders or some holiday suddenly declared by the competent authority under Negotiable Instrument Act , the next working day shall be treated as the last date of receipt of tenders
2.	The tenders should be neatly written in ink with rates in figures and words. Cutting or overwriting on quoted rates shall not be entertained unless authenticated. Cello tapes be applied on the written rates of tender.
3.	The tender should be accompanied with technical literature /brochure/pamphlet of the product.
4.	The successful tenderers shall have to complete the supply within 21 days from the date of placement of supply order or within the period as may specified in the supply order. Delivery period required by the tenderer MUST be clearly mentioned in the offer.
5.	Conditional tenders shall not be entertained
6.	Tenderers shall make available to the purchaser brochure/ full sets of information and technical documents along with the proposal on the equipment being offered. Tenderers shall furnish details of the back up engineering and systems support that will be made available to the J&K State Agriculture Department Laboratories.
7.	Tenderers shall specify the maximum period of warranty to be offered by them for any manufacturing defect that may crop up in the Equipments / instruments to be supplied by them.
8.	Tenderers shall enumerate the operational experience in similar environment of the equipment offered along with the names, addresses and order references of uses installations.
9.	The SLPC Department of Agriculture J&K reserves right to revise or alter the specifications of the equipment before the acceptance of the tender.
10.	Each copy of the tender should be a complete document and should preferably be bound .

11	Late, delayed , incomplete tenders and amendments and additions to the tender after opening will not be accepted.
12	In case the successful tenderer fails to execute the agreement or make supply as ordered ,his CDR shall be forfeited and supplier shall have no claim for its refund/release in any manner. The decision of the Convener S.L.P.C. Agriculture Department in this regard shall be final and binding upon the supplier. The supplier shall have no right to claim for such refund even in court of law.
13	Sealed quotations under two bid system (Part-I Technical Bid and Part-II Financial bid) should be as under: a) Technical Bid consisting of all technical details (as per annexure enclosed ) b) Financial Bid indicating item-wise price for the item mentioned in the technical bid (as per annexure enclosed )
14	Technical Bid (marked as cover I) and Financial Bid (marked as cover II) should be submitted in accordance with prescribed Annexure A and B (enclosed) on letter head, in separate sealed envelopes, duly super scribed " <b>Tender for supply Laboratory Instruments/Equipments</b> ". Both of these covers, as well as cover IIIrd containing Earnest Money (EMD) are to be put in a main cover of convenient size, which should be sealed properly duly super scribed as " <b>Tender for supply Laboratory Instruments/Equipments</b> " addressed to Member secretary State Level purchase Committee, Department of Agriculture Talab Tillo Jammu J&K State before dispatching the same by post/courier or putting the same in the tender box.
15	Tenders found deficient in any of the following will be summarily rejected. a). CDR for specified amount as indicated in NIT b) Make and for Model along with catalogue of the quoted item. c). Documentary evidence of ISO/BIS certification of principal manufacturer. d) Letter of authorization by dealers and suppliers from principal manufacturer for this Particular tender and. e) Registration (attested copy) of TIN No of the firm for supply/dealing with laboratory Equipment's and Machinery f) Registration /location of the unit g) NSIC/SSI certificate i) Product registration with directorate of industries. j) Documentary evidence indicating that you are principal manufacturer or authorized dealer
16	All the rates should be quoted in Indian National Rupees(INR)
17	Taxes As applicable at the time of delivery of the items.
18	Payment of the bills for supplies made shall be released subject to following conditions. a) .The equipment/machinery etc. supplied should be strictly as per the make/specification indicated in the supply order. b) The working/performance of the equipment/machinery is demonstrated to the satisfaction of the verification committee constituted for the purpose by the Department c). The payment will be released after the afore mentioned committee records a certificate that. "The equipment has been duly inspected and found as per the specification and made or make ordered for and shown satisfactory working and performance during demonstration."
19	<b>Warranty:-</b> The equipment shall be covered by a warranty period of one year from the date of its satisfactory installation at consignee" place. During the period of warranty, the supplier will provide free servicing and repairs to the equipment. This includes the transportation expenditure incurred as required.

20	The installation of the equipment, wherever required shall be at the risk and responsibility of the supplier and payment shall be released only after installation and demonstration of satisfactory working and/or performance of the installed equipment's								
21	If any equipment/machinery supplied are found to have any manufacturing defect and /or bad workmanship. The equipment shall be replaced at the sole risk and responsibility of the supplier.								
22	All terms and conditions laid in financial Code J&K are applicable. After opening of bids if it detected that raters quoted are not reasonable, SLPC reserves right to go for negotiation/retender.								
23	<b>Penalty:-</b> In case the firm fails to supply the equipment/machinery etc as per the supply order .made/specification within the stipulated period, the department will be at liberty to forfeit the CDR and impose any other penalty, as may be deemed fit in case of such eventuality.								
24	Increase in prices during the rate contract period shall not be considered thus will not affect the agreement.								
25	The offer MUST be valid for a minimum period of Ninety days from the date of opening of technical bids.								
26	The EMD of the tenderer shall be forfeited , if the tenderer withdraws, amends its tender or impairs or derogates from the tender in any respect within the period of validity of tender. Further if the successful tenderer fails to furnish the required performance security within the specified period, its EMD will be forfeited.								
27	The bid for the work shall remain open for acceptance for a period of 90 days from the date of opening of bids. If any bidder /tenderer withdraws his bid/Tender before the said period or make any modifications in the terms and conditions of the bid, the said earnest money shall be forfeited								
28	Rates quoted shall be deemed to include escalation, all taxes, duties etc. whatever during the rate contract.								
29	The committee reserves the right to visit the factory location/ workplace/dispatch site at any stage								
30	The tenders will be opened by the State Level Purchase Committee (SLPC) on the same day, or any other working day convenient to the members of the Committee, in presence of tenderers or their representatives who wish to remain present at the time of opening of tenders								
31	<div>The vendor should quote the rates inclusive of all taxes and duties as per performa</div> <table><tr><td>Basic price</td><td>VAT If applicable</td><td>CST / Entry Tax etc If applicable</td><td>Total</td></tr><tr><td></td><td></td><td></td><td></td></tr></table> <div>to be delivered F.O.R. Talab-Tillo Jammu / F.O.R Lal-Mandi Srinagar ( J&amp;K)</div>	Basic price	VAT If applicable	CST / Entry Tax etc If applicable	Total				
Basic price	VAT If applicable	CST / Entry Tax etc If applicable	Total						
32	Rates quoted MUST be for delivery on F.O.R. Talab-Tillo Jammu / F.O.R Lal-Mandi Srinagar ( J&K)								
33	The successful tenderer shall have to supply the materials within the time schedule given by the Department. In case of failure to execute the job , the Department shall be at liberty to arrange the material at the risk and cost of successful tenderer and forfeiting the C.D.R, besides initiating legal proceedings against the successful tenderer (s) as warranted under rules. In case, the extra cost involved exceeds the CDR amount, the same will be recovered from the defaulting supplier through Land Revenues Act								

34.	The successful tenderer shall have to enter into an agreement on prescribed performa on non judicial stamp paper of Rs.20/- with the indenting officer before the supply order is issued in his favour for effecting supplies.
35.	Rates approved by State Level Rate Purchase Committee shall remain valid for one year the date of issue of rate contract or till the next rate contract is available.
36.	The quotation should be signed by the authorized person and his full name and status should be indicated below his signature.
37.	The submission of the tender shall be taken as the implied acceptance of all terms and conditions stipulated herein.
38.	SLPC, departmental of Agriculture J&K Government reserves the right to accept or reject any tender or all , at any time without assigning any reason thereof.
39.	The tenderer, along with its quotation, must also submit a certified copy of its latest Income-Tax Clearance certificate.
40.	The tenderer shall have to produce a copy of Commercial Tax Clearance certificate issued by the concerned assessing authorities for the period ending March 2015 along with tender documents or before finalization of the rates.
41.	90 % Payment against Bill/invoice shall be released only after obtaining satisfactory testing result of materials supplied and 10% after completion of supply.
42.	5% as security money shall be deposited by the tenderer of the material ordered pledged to the Indenting Officer.
43.	Electricity Clearance certificate
44.	In case of dispute the decision of (Chairman SLPC) shall be final and Binding upon both the parties.
45.	Legal proceedings, if any, are subject to the jurisdiction of the courts located in the Jammu city, of J&K State.

  
 Accounts Officer  
 Member Secy. S.L.P.C.)  
 Directorate of Agriculture  
 Jammu

No: Acctts/PS /NIT/2015-16 / **384-408**

Dated : **27/07/2015**

Copy to the:

1. Director of Agriculture Jammu ( Chairman SLPC)
2. Director Finance, Agriculture Production Department.
3. Director Agriculture Srinagar
- 5.. Director of Industries and Commerce Jammu

for information and n/action please

Proforma A

Tender Form  
(Technical Bid)

(To be submitted on Tenderers letter head only)

To

The Member secretary  
(SLPC) Krishi Bhawan,  
Talab Tillo, Jammu,

Sub:- Offer for supply of laboratory items Viz. laboratory Equipments/

Ref: Nit No: Acctts/PS/NIT/2015-16/ 384-408 Dated: 27/7/2015

Sir,

With reference to your above referred NIT, I offer my rates for supply of laboratory items detailed in below format. I have read and understand all the terms & conditions of SLRCFC and agreed to abide by them.

Name of item	Detailed Specifications

\*\*As required under NIT condition following documents are enclosed herewith

- A Registration Certificate (VAT) of firm
- B VAT clearance certificate issued by concerned authority.
- C C.D.R / FDR Pledged to Accounts Officer (Member Secretary SLPC) Department of Agriculture, J&K Govt., Talab Tillo-Jammu
- D Relevant technical literature / pamphlet of the product for which the rates are quoted.
- E Valid CST/VAT and Pan Card copy should be enclosed
- F Dealership/Authorization certificate for the quoted product issued by the principal company
- G Rs.5/- revenue stamps to be fixed on technical bid.
- H A declaration by the tenderer on non judicial stamp paper, affirming the documents furnished with tender are signed by him (attested by a notary/ ist class magistrate,
- I Contact No. in the shape of E.Mail / Phone/Fax address to be provided
- J Commercial tax and Income tax clearance certificate

Rubber Stamp party

Tender Signature:- \_\_\_\_\_  
Name:- \_\_\_\_\_  
Designation

**Proforma – B**

**Technical Bid**

Details of Contract Personnel  
(To be submitted on Tenderer's letter head only)

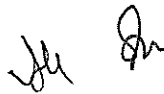
In the event of need of communication. I/we.....  
.....hereby authorize following official as our  
personnel.

1	Name of Personnel	
2	Designation	
3	Phone No with STD Code (Office)	
4	Fax No.	
5	Phone No. with STD Code (Residence)	
6	Mobile No.	
7	E-mail Address	Very important

Place;

Stamp & Signature of the  
Tenderer

Date:





Proforma - C

Tender Form  
(Financial Bid)

(To be submitted on Tenderers letter head only)

To

The Member Secretary ,  
(SLPC) Krishi Bhawan,  
Talab Tillo, Jammu,

Sub:- Offer for supply of laboratory items Viz. laboratory Equipments/Instruments

Ref: NIT No: Acctts/PS/NIT/2015-16/ 384-408 Dated: 27/2/2015

Sir,

With reference to your above referred NIT, I offer my rates for supply of laboratory items detailed in below format, I have read and understand all the terms & conditions of SLPC and agreed to abide by them

Name of item	Rates offered		
	Basis Price	CST/VAT / Entry Tax etc If applicable	Total Cost

Rubber Stamp party



Date:

Tender Signature:- \_\_\_\_\_

Name:- \_\_\_\_\_

Designation \_\_\_\_\_

AM 2

# Annexure\_A

## LIST OF INSTRUMENTS WITH SPECIFICATION

S. No.	Name of Item	Specification	Remarks - specification for laboratories
1.	Refrigerator	<b>Capacity:</b> Net Total: 300L, Freezer: 53L, Refrigerator: 202L Cooling Feature= frost free, multi flow <b>Physical Specification</b> <b>Dimension:</b> Net (W x H x D): 555 x 1,635 x 637mm Net Case Height with Hinge: 1,635mm <b>Net Depth with Door Handle:</b> 688mm Net Depth without Door Handle: 637mm <b>Net Depth without Door:</b> 545mm Gross (W x H x D): 582 x 1,698 x 710mm <b>Number of chambers:</b> 2 Materials of shelves: Glass <b>Number of Vegetable &amp; Fruit Drawer:</b> 2 (Big Box & Fruit Box) <b>Type of Door Pocket:</b> Transparent <b>Others:</b> Power saving rating: 5 star (DIC), Lock & Key, Cyclopentane Insulation <b>Accessories:</b> Voltage stabilizer (If not inbuilt) Capacity: 0.7 KVA	MSTL/FQC L, PTL & STL
2.	Magnetic Stirrer	<b>Specification:</b> Digital control, motor less magnetic stirrer with reverse stirring <b>Stirring speed:</b> 80-1200 RPM <b>Stirring volume:</b> up to 1000 ml <b>Stirring position:</b> 4 <b>Power rating:</b> 5/10/15/20 Watts <b>Dimension:</b> (Lx W x H): 36 x 32 x5 (cm) <b>Power:</b> AC 230 V, 50Hz <b>Accessories:</b> <b>Round magnetic stirring bar with pivot ring, Dimension:</b> 8 x 50 mm: 3 Nos. 12.7 x 76 mm: 2 Nos. <b>Triangular magnetic stirring bar, Dimension:</b> 14 x 30 mm: 2 Nos. <b>Magnetic Retriever:</b> 2 Nos.	PTL & FQCL
3.	Kjeldahl Apparatus	Kjeldahl assembly, both as digestion and distillation set, having a capacity to hold 6 round-bottomed flask of 300 – 500 ml capacity each complete with condenser and connecting tubes <b>Specification:</b> Extraction and Kjeldahl apparatus <b>No. of Controls:</b> 6 <b>Watts:</b> 1200 <b>Energy Regulator Control:</b> should be present <b>Stand:</b> Included	PTL & FQCL
4.	Muffle Furnace	<b>Specification:</b> Item Description: Microprocessor controlled digital PID temperature controlled Muffle Furnace.	FQCL



	<p><b>Internal Capacity:</b> Internal capacity should be between 3.75 to 5.6 litres.</p> <p><b>Technical / Construction Requirement:</b></p> <ul style="list-style-type: none"> <li>• The Muffle furnace should be of double walled construction. The exterior should be constructed with suitable gauge Mild Steel, pre-treated and powder coated with aesthetic coloured heat resistant paint.</li> <li>• The muffle furnace chamber should be made from powder free fused ceramic fibre mold or Fused quartz to avoid the ceramic dust inside the chamber.</li> <li>• The muffle furnace should not use fire bricks and or asbestos for insulation.</li> <li>• <b>Construction:</b> The Muffle Furnace should use powder free ceramic fibre insulation for fast heat-up, heat loss and dust free internal area.</li> <li>• The Muffle furnace should have air ventilation port.</li> <li>• The Digital Muffle furnace should have validation port for inserting temperature sensor/Thermometer for temperature validation purposes.</li> <li>• The furnace should have well-insulated tight closure door. Asbestos or fire bricks should not be used for door.</li> </ul> <p><b>Operating Temperature:</b> <math>1000 \pm 100^{\circ}\text{C}</math></p> <p><b>Temperature Controller:</b></p> <ul style="list-style-type: none"> <li>• Microprocessor based PID digital Control.</li> <li>• The temperature sensor should be a calibrated temperature probe preferably with the calibration certificate.</li> </ul> <p><b>Temp. Setting &amp; display:</b> Digital setting and digital display</p> <p><b>Heating Element &amp; Set temperature accuracy:</b></p> <ul style="list-style-type: none"> <li>• Three sides' wall heating element or heating element wound on moulded muffle and should maintain temperature uniformity <math>\pm 3^{\circ}\text{C}</math> at <math>1000^{\circ}\text{C}</math> or better.</li> <li>• The heating element should be of Kanthal make High-resistivity iron-chromium-aluminium alloy or High resistivity nickel-chromium alloy heating element or equivalent quality.</li> </ul> <p><b>Safety requirements:</b></p> <ul style="list-style-type: none"> <li>• The Muffle furnace should have temperature over-shoot protection circuitry in case of temperature sensor fails.</li> <li>• The muffle furnace should automatically cut off the power to the heater when the door opens.</li> </ul> <p><b>Installation:</b></p> <ul style="list-style-type: none"> <li>• The vendor should inspect and verify all the items against the Purchase order, immediately after the receipt of the consignment at MRPL and should install and commission the Muffle Furnace immediately after the inspection.</li> <li>• The vendor should include all the necessary items required for the installation and working of the Muffle Furnace in the Main instrument offer.</li> <li>• The vendor should provide instruction/ operation manual of the Muffle Furnace.</li> </ul> <p><b>Require Spares:</b> The vendor should quote separately for the optional spares and accessories</p> <table border="1"> <thead> <tr> <th>Description</th> <th>Quantity Required</th> </tr> </thead> <tbody> <tr> <td>PID Temperature Controller</td> <td>1 No.</td> </tr> <tr> <td>Temperature Probe</td> <td>1 No.</td> </tr> </tbody> </table>	Description	Quantity Required	PID Temperature Controller	1 No.	Temperature Probe	1 No.	
Description	Quantity Required							
PID Temperature Controller	1 No.							
Temperature Probe	1 No.							

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		Heating Element Silica with bowl / pot with Capacity 50 ml with lid – 12 Nos.	I No.
5.	Reciprocating Shaker	Strokes per minute: 150 – 250 with adjustable compartments Heavy Duty Motor: with 0.25 HP, 220 Volts / 50 Hz The rate of motion is adjustable mechanically by belt tension 0 – 60 minute times Size of Carrier: 20" × 13" × 4"	STL / astc
6.	Hot Plate (Rectangular)	Rectangular Hot Plate, body made from thick (at least 18 mm) mild steel painted with hammer tone paint. Upper portion is of thick (at least 25mm) iron plate or machine casted iron plate which can withstand high temperature, should have temperature control switch with sunvic energy regulator indicator lamp, wire and plug. Size: (45 cm x 60cm x 15cm) Rating: 3 Kilo watt	STL, PTL & FQCL
7.	Electronic Balance	Capacity: 300 grams Sensitivity: 0.01 grams Taring Range (Subtractive) Pan Diameter: 80 – 150 mm Operating Temperature: 5 – 40° C	MSTL, STL, PTL & FQCL (General purpose balance)
8.	Magnetic Stirrer	Top Plate Material: Ceramic Top Plate Dimension: 18 × 18 cm Stirring Speed Range: 100 – 1000 rpm Maximum Capacity: 5 liters Dimension: (W × H × D): 19 × 11 × 21 VAC 240, Hz 50, Amps 0.11 and watts 15	PTL, FQCL & STL
9.	Hot Plate	Top Plate Material: Ceramic Top Plate Dimension: 18 × 18 cm Temperature Range: 150° C – 500° C Maximum Load: 11 kgs Dimension: (W × H × D): 19 × 11 × 21 VAC 240, Hz 50, Amps 4.6 and watts 1100	PTL, FQCL & STL
10.	Magnetic Stirrer cum Hot Plate	Top Plate Material: Ceramic Top Plate Dimension: 18 × 18 cm Temperature Range: 150° C – 500° C Maximum Load: 11 kgs Stirring Maximum Capacity: 5 liters Stirring Speed Range: 100 – 1000 rpm Dimension: (W × H × D): 19 × 11 × 21 VAC 240, Hz 50, Amps 4.7 and watts 1155	PTL, FQCL & STL
11.	Heating Mantels	Decently painted Aluminum metal body Capacity: 500 ml & 1000 ml, with energy regulator, switch and indicating lamp	PTL & FQCL
12.	Digital Burette	<ul style="list-style-type: none"> <li>Accuracy ± 0.06 % or better. As per class A precision.</li> <li>Display is continuous with a display from 0 to 99.99ml option of 0.001 ml or 0.01 ml. Zero reset of display by press of a button.</li> <li>Supply with a operating and maintenance manual with clear pictorial description of all the operations like setting up the instrument, getting started, operational limits and exclusions, user safety, calibration of instrument and spare parts with part numbers.</li> </ul>	PTL, FQCL, MSTL & STL

		<ul style="list-style-type: none"> <li>SOP for calibration, test and calibration certificate mentioning accuracy and coefficient of variation % to be provided.</li> <li>Refilling be done without changing the display.</li> <li>Whole filling and dispensing system can be dismantled for cleaning without any change in the accuracy or calibration of the instrument.</li> <li>Built in safety valve.</li> <li>All required neck adapters are provided to fix the burette on top of various kinds of reagent bottles and threaded bottles.</li> <li>Electronic calibration.</li> <li>Programmable auto power off from 1 - 30 minutes, with previous reading display on switching on.</li> <li>Adjustable dispensing tube in both horizontal and vertical direction, Telescopic filling tube to adjust the length depending on the depth of the bottle.</li> <li>Inspection windows to view the liquid in the burette and spare amber colored windows for photo sensitive titrations, drying tube connection provision for hygroscopic reagents.</li> <li>Provision for RS 232 port with software for transferring the data on to the computer and exporting in xls format.</li> <li>Spare parts like dispensing cylinder, piston head, filling valves, titrating tube, filling tube, inspection windows should be available and also to be quoted.</li> </ul>	
13.	Deep Freezer	<ul style="list-style-type: none"> <li>Deep freezer Upright Type (- 40° C)</li> <li>Cooling fan should be permanently lubricated.</li> <li>Chemically stable CFC Free environmental safe refrigerant.</li> <li>High density foam insulation for rigidity and stable storage temperature.</li> <li>Micro processor control, digit display adjustable temperature range between - 10 to 40° C.</li> <li>Door lock facility.</li> <li>Cabinet Type: Upright</li> <li>Cooling type: Direct cooling.</li> <li>Defrost Mode: Manual</li> <li>Refrigerant: CFC Type</li> <li>Noise level: &lt; 44db</li> <li>Cooling Performance: - 40° C</li> <li>Temperature Range: - 10 to 40° C</li> <li>Controller: microprocessor</li> <li>Display: LED</li> <li>Capacity 188 liters</li> <li>Interior dimensions (W × D × H): 380 × 420 × 1225 (mm)</li> <li>High / Low temperature: yes</li> <li>Sensor Error: Yes</li> <li>Power Requirements: 240 V, 50 – 60 HZ</li> </ul>	PTL
14.	Karl Fisher Titrator	<ul style="list-style-type: none"> <li>Volumetric Karl Fischer Titrator with built – in burette drive for moisture determination with suitable titration.</li> <li>Stand capable of siphoning and waste dispensing facility and stirrer is required with the following specification:</li> <li>Application range of 100 ppm to 100 % water</li> <li>The equipment should have a burette accuracy of 1 / 10000</li> </ul>	FQCL

		<p>of the burette volume.</p> <ul style="list-style-type: none"> <li>• The burette provide should be of latest intelligent type, with facility to store Tyrant information.</li> <li>• Type of reagent, Titer value of reagent, Titer history, shelf life data, date and time of preparation etc.</li> <li>• The equipment should be latest and USB compatible.</li> <li>• The equipment should have the live display feature.</li> <li>• It should have the facility to use a mouse or a keyboard.</li> <li>• The equipment should have the facility to save the results in USB memory disk.</li> <li>• It should also have facility to save the results in data management software.</li> <li>• The equipment should have the option to choose between a polarized alternating current (Ipol) to be applied to the electrode</li> <li>• Should have the facility to STOP the titration by delay time or the novel "drift stop", where titration stops when a preset drift value is reached.</li> <li>• The equipment should not have a separate method for drift determination and the drift compensation should be automatic.</li> <li>• It should have the electrode test and "Safety Stop" feature to prevent cell run over during conditioning. If for example, the electrode is not connected correctly or the titration cell is very humid.</li> <li>• Conditioning is stopped after a given time or a given volume of KF reagent added.</li> <li>• The equipment should have a suitable KF Titration stand not only for stirring, but also for automatically exchanging the spent titration vessel contents at the press of a button. With the integrated membrane pump, solvent should be aspirated or added without the cell having to be opened.</li> <li>• The equipment should be compatible with the auto sampler, for automation of sample analysis if required in the future.</li> <li>• The instrument should also have the facility to work with a suitable oven sampler for samples which releases moisture on heating and to determine the bound moisture.</li> </ul>	
15.	Bottle Top Dispenser	<ul style="list-style-type: none"> <li>• The bottle top dispenser should be autoclavable at 121<sup>0</sup> C for sterilization.</li> <li>• Dispensette should provide with safety re-circulation valve to avoid risk of splashing the reagent as well as air bubbles.</li> <li>• Resistant piston and cylinder are made up of glass plus Teflon protected material thus making it compatible to all the chemicals in lab.</li> <li>• The dispensette should provide readability ranging from 0.02 – 0.2 ml depending on the volume range thus providing excellent accuracy.</li> <li>• Dispensette should be operated for lab condition up to 40<sup>0</sup> C.</li> <li>• Accuracy: <math>\leq \pm 0.5\%</math> for all the volume range.</li> <li>• Coefficient of variation: <math>\leq \pm 0.1\%</math> for all volume range.</li> <li>• The dispensing block should be rotated in 360<sup>0</sup> angle so that the bottle label always faces the user for safety.</li> <li>• It should easy to calibrate and adjust in order to comply with</li> </ul>	MSTL, FQCL, STL, PTL

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		<p>ISO 9001 and GLP guidelines. A positive indicator automatically indicated adjustment from the factory setting.</p> <ul style="list-style-type: none"> <li>• The Dispensette should provide with calibration certificate as per DIN ISO 8655.</li> <li>• Length of flexible filling tube should be adjusted so as to take chemical from bottles of any size.</li> <li>• Additional adapters of various sizes minimum should be included in the pack so as to mount Dispensette on any bottles for all volume ranges.</li> <li>• The Dispensette should be easily dismantled without any tools for cleaning and maintenance purpose without any change in calibration of the instrument.</li> <li>• The Dispensette should have optional provision for dispensing the reagent in totally dry condition and can also be used for chemicals which are reactive to moisture in air.</li> <li>• The material of construction of the instrument is as follows: Piston – Preferably Teflon Cylinder and Valve Balls – should be glass Tubing's – can be PFA / FEP Valve Seat – should be ceramic. Capacity – 10 to 60 ml</li> </ul>	
16.	Deionizer	<ul style="list-style-type: none"> <li>• The deionizer should be of double bed type and must be able to process at least 10 – 15 liters of water per hour to yield high quality deionized water (&lt; 10 micro Simens / cm).</li> <li>• There should be provision for constant monitoring of water quality (Conductivity Meter).</li> <li>• The equipment must be provided with compatible reverse osmosis unit for water supply to deionizer.</li> <li>• The components should be compact and non – corrosive.</li> <li>• The system should be provided with operational manual.</li> <li>• The technical quotation must be accompanied with the printed literature about the machine.</li> </ul>	MSTL, FQCL, STL, PTL
17.	Micro processor based Analytical Electronic Balance	<p>Weight Capacity: 160 grams or above.  Readability: 0.1 mg  Repeatability: 0.1 mg  Linearity: <math>\pm 0.2</math> mg  Calibration: Internal calibration  Other Feature: Overload protection should exist, piece counting, percent weighing, check weighing, statistics, Formulation, Totaling, Free Factor. Memory recall facilities should exist.  Celebration certificate: calibration certificate from an NABL accredited Laboratory under ISO 17025 in the name of Laboratory should be provided.</p>	FQCL & PTL (Option – 1)
18.	Micro processor based Dual Scale Analytical Electronic Balance	<p>Weight Capacity: 160 grams / 50 gm or above.  Readability: 0.1 mg / 0.01 mg  Repeatability: 0.1 mg / 0.01 mg  Linearity: <math>\pm 0.2</math> mg / 0.1 mg  Calibration: Internal calibration  Other Feature: Overload protection should exist, piece counting, percent weighing, and check weighing, statistics, Formulation, Totaling, and Free Factor. Memory recall facilities should exist.  Celebration certificate: calibration certificate from an NABL accredited Laboratory under ISO 17025 in the name of Laboratory should be provided.  PS:  If the laboratory has already got a dual scale analytical balance,</p>	FQCL & PTL (Option – 2)

		Option – 1 may be preferred to save the budget or else dual scale balance – Option – 2 is advisable and recommended.	
19.	Laboratory Hot Air Oven	<ul style="list-style-type: none"> <li>• Doubled Walled construction inner chamber made of Stainless Steel.</li> <li>• The gap between the two walls filled with glass wool insulation.</li> <li>• Fully insulated door with brass lock hinges &amp; aluminium ventilator.</li> <li>• Heating is by specially designed heaters made of Nichrome wire</li> <li>• Temperature controlled by thermostat</li> <li>• Supplied with GI Wire mesh shelves</li> <li>• Forced Air circulating System with Fan for temperature Uniformity</li> <li>• Air ventilations to remove hot gases/fumes.</li> <li>• Temperature controller by Microprocessor based Auto Tune PID controller with 0.01 resolution &amp; PT 100 as sensor.</li> <li>• Safety thermostat</li> <li>• Temperature Range: 50°C to 250°C</li> </ul> <p><b>Temperature Resolution: 0.10 C</b>  <b>Control Accuracy: + -2°C</b></p>	MSTL, FQCL, STL, PTL
20.	Vertical Autoclave	<p>Fully Automatic Vertical Programmable Autoclave</p> <ul style="list-style-type: none"> <li>• Capacity 75 Liters Fully Automatic</li> <li>• 4 Line LCD Screen to display: Program No. &amp; Name • Set &amp; Process Values</li> <li>• Help Messages &amp; Process Alerts • Process Over &amp; Ongoing Process Stage</li> <li>• Power On Displays Last Program successfully completed</li> <li>• 2 Fixed Programs: 121oC or 134oC cycle (Gentle or Prion); 20 to 29 Mins programmable; 1/3 Process</li> <li>• Vacuums &amp; Drying Cycle with programmable time</li> <li>• 1 Custom Program with all parameters programmable</li> <li>• Auto Vacuum Drying for best result</li> <li>• SS 304 Chamber &amp; Jacket + Boiler Tank with Ceramic wool Insulation.</li> <li>• Built-in Vacuum System: Vacuum Pump / Breaker, Pressure Gauge</li> <li>• Sterilizable Instrument Types: Unwrapped Solid, Wrapped, Porous, Hollow</li> <li>• Air Removal By Vacuum ("B" Class)</li> </ul> <p><b>Safety:</b></p> <ul style="list-style-type: none"> <li>• <b>Electronic:</b> Power cut-off when: idle; chamber temperature &gt; set value.</li> <li>• <b>Electrical:</b> on failure of sensor or µcontroller.</li> <li>• <b>Mechanical:</b> Safety valve.</li> <li>• <b>Operational:</b> steam released on cycle completion</li> <li>• <b>Quick Innovative Flexible &amp; Safe</b></li> </ul> <p><b>Power Input:</b></p> <ul style="list-style-type: none"> <li>• Operating Voltage: 220 VAC +/- 5%, , 50 Hz</li> <li>• Power Rating: Heater / Control 3000/25 Watts</li> </ul> <p><b>Technical specifications for Vertical Autoclave:</b></p>	Bio Quality Control Lab Srinagar

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		<ul style="list-style-type: none"> <li>• Size: 600 x 350 mm (approx)</li> <li>• Double/ triple walled construction.</li> <li>• The working chamber, steam jacket, outer chamber and the lid should be made of stainless steel.</li> <li>• Temperature Indication accuracy: 0.1°C</li> <li>• Pressure Indication accuracy: 0.1 PSI</li> <li>• Control: PID with auto tune</li> <li>• Control accuracy: 0.1°C</li> <li>• Should have water inlet and outlet valves.</li> <li>• Should have a water level gauge</li> <li>• Should have gauges for measuring inner and outer steam pressure.</li> <li>• Should have an inner temperature indicator.</li> <li>• Should have automatic pressure control switch, safety valve and eject valve.</li> <li>• Should have joint-less silicone gasket.</li> <li>• Should have automatic low water protection.</li> <li>• Should be supplied along with bins.</li> <li>• Should have an ISI mark.</li> <li>• Should have 121°C working temperature at 15 to 16 psi pressure.</li> </ul>	
21.	Auto Titrator	<p>Principle: Volumetric determination by equivalence point  Control: Micro controller based  mV Range: <math>\pm 3200</math> mV  Accuracy: <math>\pm 0.1</math> mV  Burette Resolution:  1/10000 for 5 ml  1/5000 for 10 ml  1/5000 for 25 ml  Filling Time: &lt; 20 seconds  Key board: Alphanumeric splash water proof polyester soft keys  Display: Back lighted liquid crystal display  Titration head: manual stand with swiveling arm  Stirrer system: micro controller based variable speed, high Torque vortex stirrer with digital indication of rpm &amp; optional magnetic stirrer  Sensors: Electrodes For Potentiometric Titration Temperature Sensors  Calibration: 3 point calibration with user entered buffer values and standardization with pH 7 buffer  End point detection: Potentiometric, Volta metric, Thermometric And Photometric  Cut Off Criteria: Volume, end point or mV/pH  Methods:  <b>Acid-Base;</b>  <b>Non Aqueous Redox;</b>  <b>Precipitation;</b>  <b>Complexometric &amp;</b>  <b>Back Titration</b>  Results: Molarity, % w/w, % v/v, mg/l, g/l, Meq/l, mol/kg, Total Acid Number &amp; Total Base Number for oil samples  Method storage: 50 methods with parameters  Titrant molarity storage: 20 values</p>	PTL / STL / FQCL

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		<p>Input/output peripheral: parallel and serial ports  Power: 230 V AC; 50 HZ  Temperature: ambient to 45° C  Humidity: humidity 5 to 90%  Operating and Maintenance Manual of the instrument is to be supplied along with the instrument.</p>	
22.	Automatic Nitrogen Estimation in Soil / Fertilizer Samples	<p><b>A. Automatic Macro Block Digestion system</b>  Automatic Auto sequencing Six place PC Compatible macro block digestion system (250ml), 30 intelligent memory programmes, 12 desirable sequence steps of time / temperature domain, 360 memory segments, Digital two line LCD Display, live schematic process flow feature, graphical representation of time and temperature gradient, Direct USB port for PC/Laptop compatibility without the need of RS 232 or RS 485 converter with Inbuilt software programmer to handle micronutrient, Macronutrient, trace element, upgradable to remote control module for wireless data monitoring, control and transfer, Viton fume hose for di-acid and tri-acid digestion, casted aluminium alloy heaters with all essential accessories like rack, tubes, exhaust manifold, etc. ISO 9001: 2008, CE certified, inbuilt safety features to fulfil GLP Safety norms, additional one set tubes and racks, Electrical requirement: 220V/50Hz</p> <p><b>B. Distillation unit</b>  Auto sequencing Microprocessor based PC Compatible Distillation System with in-built software 30 pre-definable user storage programs Automatic dilution, Alkali Addition, Steam Processing, Process over indication with alarm with delay time feature Automatic titration connectivity feature for future up-gradation, ISO 9001: 2008, CE certify, digital LCD display, RS 232 interface for connectivity to PC Built-in safety features to fulfil GLP norms like Tube insert error indication, door open error etc, In case of no water condition in condenser, the instrument should automatically deactivate the system with auto alarm and indication, Auto deactivation of System on error diagnosis, adjustable steam power, reagent level indicator with alarm, Auto online water saving mechanism, Stainless steel non corrosive steam Generator, Fully Automatic water level monitoring with centrifugal refilling pump and Peril static pump for reagents addition, Electrical Requirement - 220V/50Hz</p>	FQCL / STL
23.	BOD INCUBATOR	<p>Chambers made of double walls, the exterior made of sheet steel and the interior made up of stainless steel for simulation of temperature and humidity values above freezing. Body insulated with PUF. Microprocessor based control of temperature, humidity. Digital display with power failure, door open, temperature, humidity variation alarm. CFC free refrigeration</p> <ul style="list-style-type: none"> <li>• Internal Volume: 290 Litres</li> <li>• Temperature: 10 – 70° C <math>\pm</math> 1° C</li> <li>• Relative Humidity: 40 – 85 % <math>\pm</math> 3 %</li> <li>• Shelves: 2 – 3 modular adjustable, made of stainless steel</li> <li>• Chamber illuminated with 10 W fluorescent tubes</li> <li>• Suitable voltage stabilizer (ISI) to be provided with</li> </ul>	FQCL

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		<p>output of 220 – 240 volts</p> <ul style="list-style-type: none"> <li>The supplier is bound to install the equipment to the satisfactions of indenter.</li> </ul> <p>Technical Specification: Double walled inside made of thick anodized aluminium / stainless steel and outside of Mild Steel Sheet furnished in Epoxy Powder Coating.</p> <ul style="list-style-type: none"> <li>The gap of 75 mm between two walls should be fitted with pure mineral wool.</li> <li>Should be provided with Synthetic rubber gasket on the door for better grip.</li> <li>This incubator should have double where door outer is metal door and inside is glass door in stainless steel frame.</li> <li>Heating elements should place in ribs at the bottom and sides. Two adjustable air ventilators are placed near the top of the sides.</li> <li>The temperature should be controlled by an Electronic microprocessor (PID CONTROOLER) Temperature Controller cum Indicator from few °C above ambient to 70 deg. C with sensitivity of plus minus 0.5 deg. C</li> <li>Incubator should be supplied complete with two pilot lamps, air circulating fan perforated shelves adjustable at any level, having arrangement to fit the automatic timer to work on 220/230 volts A.C. only with cord and plug.</li> <li>Micro processed PID controller having 4 ramp &amp; 4 soak profile having set mode, alarm parameter, configuration parameter, profile parameter, set point profile, PV error indicator , parameter for locking etc.</li> </ul> <p>Timer: Automatic timer electronic 999 mts Alarm: It is possible to provide electronic alarm, if temperature deviates more than <math>\pm 5^{\circ}\text{C}</math> to cost extra</p>	
24.	HORTIZONTAL LAMINAR AIR FLOW	<ul style="list-style-type: none"> <li>Dimension: width approx. 6 feet and depth approx. 2.5 feet.</li> <li>Table top: Stainless steel of ss-304 grade</li> <li>Microprocessor control, touch control door and door lock, touch control for blower, light and UV</li> <li>The laminar airflow velocity: 0.45 m/sec <math>\pm</math> 10%.</li> <li>Air cleanliness within working area: ISO 14644 (class 100)</li> <li>Noise level: Noise level less than 62dBA (Certificate/Proof must be provided)</li> <li>Air flow: Unidirectional</li> <li>Air flow control: Minimum three step air flow controller</li> <li>HEPA or ULPA filter: Having 99.99% efficient filter against 0.3 or less micron particle size.</li> <li>The laminar airflow should be fitted with illumination facility and UV-light.</li> <li>The intensity of lighting inside the cabinet should be 800 lux or more and the light should be glare-free.</li> <li>As much as less power consumption (should be specified unit)</li> <li>At least one electric supply outlet in the cabinet</li> <li>Service fixtures for gas and water supply</li> <li>Area for liquid spills</li> <li>The system should be provided with a suitable base stand</li> </ul>	PTL

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		<p>(preferably with castor lockable wheels) from the original manufacturer.</p> <ul style="list-style-type: none"> <li>• Power supply: 230V, +/-10%, 50 Hz</li> <li>• Optional: Validation of the instrument to be done after every 6 months from the date of installation.</li> <li>• Warranty: preferably five years</li> </ul> <p>– Bidder should give compliance statement point wise showing/highlighting items part number / serial number as quoted in their quotation for comprehensive technical comparison. Proof of compliance should be mentioned point wise in the catalogue.</p> <p>– Failing in compliance and proof of compliance will cause cancellation of the bid without any further notice/information.</p> <p>Multiple Models with higher specifications should be quoted as separate models in the bids.</p>	
25.	ORIBITAL SHAKER	<ul style="list-style-type: none"> <li>• Microprocessor PID control</li> <li>• Speed range: 10 to 300 rpm</li> <li>• Dual shaking actions: orbital or reciprocating</li> <li>• Additional shaking modes: Forward (clockwise rotation), Backward (counter clockwise rotation), and Pause.</li> <li>• Multi-step Programming of Shaking Operations Run time: 10 sec to 999 hr 59 min 59 sec Forward/Backward/Pause modes: 10 sec to 59 min 59 sec</li> <li>• Maximum orbit diameter 40mm (1.6")</li> <li>• Bright LED displays with touch-sensitive keypad</li> <li>• Equipped with a maintenance-free direct drive BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion required for high-speed applications and heavy workloads.</li> <li>• Special acceleration and deceleration circuitry</li> <li>• Stopping the shaking table always at the same position allowing for automated dosing or sampling.</li> <li>• Providing smooth start and smooth stop preventing chemical spills from flasks or test tubes</li> <li>• Low-profile design minimizing vibration or sliding caused by the high speed shaking motion</li> <li>• Chemicals-resistant and durable construction</li> <li>• System should have self protecting cut off indication (should be equipped with safety device and circuit that can be operate independently in case of electric or electronic system malfunction.</li> <li>• Dimension Platform (W×D) (mm / inch): 450×450 / 17.7×17.7</li> <li>• Suitable platform and clamps for 500 ml should be quoted along with system (Maximum 16 clamps of 500 ml capacity is desired)</li> </ul> <p>Electrical Requirements (230V, 50 / 60Hz): 0.2A</p>	BIO LAB
26.	CENTRIFUGE	<ul style="list-style-type: none"> <li>• Maximum speed 18000 rpm</li> <li>• Maximum RCF 23545xg</li> <li>• Maximum Volume 4 x 100 ml</li> <li>• Speed range 200 – 18000 rpm</li> </ul>	BIO LAB

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		<ul style="list-style-type: none"> <li>• Maintenance-free induction drive</li> <li>• Microprocessor with large LCD display</li> <li>• Motor driven lid lock</li> <li>• Automatic rotor identification system with over speed protection immediately upon rotor installation</li> <li>• Active imbalance-identification and –cut off rotor specific</li> <li>• Imbalance tolerant drive</li> <li>• Audible signal at the end of each run with several melody options</li> <li>• Rotor change should be easy to handle</li> <li>• Noise level under 60 dBA at Maximum speed</li> <li>• Simple one handed operation</li> <li>• Easy to program with gloves on</li> <li>• Splash proof digital display</li> <li>• Permanent indication of Preset and Actual Values</li> <li>• Selection of speed in both rpm and g-force, with increments of 10</li> <li>• 10 acceleration and 10 deceleration rates, possibility of un-braked deceleration</li> <li>• Pre-selection of running time from 10 s to 99h 59min or continuous</li> <li>• Storage of up to 99 runs incl. rotor type</li> <li>• Quick-key for short runs</li> <li>• Diagnostic program</li> <li>• Power requirement – 230 v – 50/60 Hz</li> <li>• Angle rotor of 6 x 50 ml</li> <li>• Maximum speed 12000 rpm</li> <li>• Maximum RCF 13523xg</li> <li>• Angle rotor of 24 x 1.5/2.0 ml</li> <li>• Maximum speed 14000</li> <li>• Maximum RCF 18625xg <ul style="list-style-type: none"> <li>– Free- Installation, demonstration &amp; training at site with operating manual.</li> <li>– Warranty- Minimum One year (1st Year) from date of installation</li> </ul> </li> </ul> <p>AMC- 2nd, to 3rd Year (Charges for AMC should be quoted separately)</p>	
27.	Binocular Microscope with phase contrast attachment	<p><b>Body:</b> Binocular body rotatable through 360° shape corrosion resistant stand with convenient location of focus controls. Anti fungus treated, binocular or Trinocular Tube</p> <p><b>Eyepieces:</b> wide field eye piece WF 10X and WF 15 X</p> <p><b>Objectives:</b> Achromatic / Semi Plan Objectives 4X, 10X, 100X, oil immersion</p> <p><b>Microscope should be ISI Marked</b></p> <p><b>Nose Piece:</b> Quadruple revolving nose piece, with positive click stop, provided with ribbed grip for easy rotation, mounted on precision ball bearing mechanism.</p> <p><b>Stage:</b> Horizontal mechanical stage of size 140 × 140 mm approximate with fine Werner graduation, least count 0.1 mm. The clamps provided are metallic and spring loaded for exact positioning of the specimen. The stage is fitted with ball bearing to allow smooth travel over an area of 75 × 50 mm.</p>	BIO QUALITY LAB

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		<p><b>Illumination:</b> the microscope equipped with a high intensity compact light source, a filed diaphragm to enable Koehler Illumination, with halogen lamp of 6 volt 20 W within built ON / OFF switch. Plano Concave Mirror and light intensity regulators should also be provided.</p> <p><b>Eye Piece Tube:</b> Binocular eye piece tube should provide images, rotatable through 360° inclined at 45° having adjustable dioptic scale from +5 to -5. The graduation is at the intervals of one diopetre. The interocular distance should be variable from 54 to 74 mm for convenience of the observer.</p> <p>Packing: Wooden Storing Cabinet with lock and key.</p> <p>Accessories: Phase Contrast Attachment, Vinyl Cover, Duster, 25 ml immersion oil, Rolls of lens paper, 100 ml of cleaning solution and cleaning brush.</p> <p><b>Features:</b> Binocular eyepiece with dioptre adjustment facility for measurement calibration, 30 / 45° inclined, photo adapter site for CCD and projector attachment with phase contrast kit, darkfield kit, fluorescent kit, polarizing kit, day light blue / green filter and adapter for digital still camera with USB port.</p>	
28.	Digestion Chamber and fume hood	<p>: A table mounted digestion chamber provided with water sink to absorb acid fumes with the following specifications.</p> <p><b>SPECIFICATIONS</b></p> <p>Fume Hood : size 5ftx3ftx4ft.ht(working area 5ftx3ft only)</p> <p>Fully moulded with fiberglass</p> <p>Light: Chamber should be provided with standard tube light</p> <p>Fume cupboard should be provided with tank made of fiber glass for absorption of fumes</p> <p>Front Fume Cupboard Door should have counter weight system and toughened glass</p> <p>Arrangements.</p> <p>Should have protection from weather conditions and acoustic insulation</p> <p>Exhaust Blower made of fiber glass powered by 1.5 HP with Ducting.</p> <p>Should be provided with two hot plates for digestion of samples (size to hold 20 flasks of 100 ml. capacity.</p> <p>Should be provided with compatible Fume Hood Working table.</p> <p>The chamber should have lockable shutter arrangement for safety during operation.</p>	FQCL
29.	Global Positioning System(GPS)	<p>Display Size L x H 1.5"x 1.8"(appox), Diagonal 2.34" (appox)</p> <p>Resolution 128 x 160 Pixels</p> <p>Display Type: Transflexitive , Monochrome</p> <p>Battery Life : 20 hours</p> <p>Battery rechargeable : Yes</p> <p>Water proof : Yes</p> <p>High Sensitivity receiver : Yes</p> <p>Interface : USB</p> <p>Base Map : Yes</p> <p>Altimeter : with altimeter or without altimeter</p>	FQCL / STL





30.	Auto Titrator	<p>Principle: Volumetric determination by equivalence point</p> <p>Control: Micro controller based</p> <p>mV Range: <math>\pm 3200</math> mV</p> <p>Accuracy: <math>\pm 0.1</math> mV</p> <p>Burette Resolution: 1/10000 for 5 ml 1/5000 for 10 ml 1/5000 for 25 ml</p> <p>Filling Time: &lt; 20 seconds</p> <p>Key board: Alphanumeric splash water proof polyester soft keys</p> <p>Display: Back lighted liquid crystal display</p> <p>Titration head: manual stand with swivelling arm</p> <p>Stirrer system: micro controller based variable speed, high Torque vortex stirrer with digital indication of rpm &amp; optional magnetic stirrer</p> <p>Sensors: Electrodes For Potentiometric Titration Temperature Sensors</p> <p>Calibration: 3 point calibration with user entered buffer values and standardization with pH 7 buffer</p> <p>End point detection: Potentiometric, Volta metric, Thermometric And Photometric</p> <p>Cut Off Criteria: Volume, end point or mV/pH</p> <p>Methods: Acid-Base; Non Aqueous Redox; Precipitation; Complexometric &amp; Back Titration</p> <p>Results: Molarity, % w/w, % v/v, mg/l, g/l, Meq/l, mol/kg, Total Acid Number &amp; Total Base Number for oil samples</p> <p>Method Storage: 50 methods with parameters</p> <p>Titrant molarity storage: 20 values</p> <p>Input/output peripheral: parallel and serial ports</p> <p>Power: 230 V AC; 50 HZ</p> <p>Temperature: ambient to 45° C</p> <p>Humidity: humidity 5 to 90%</p> <p>NOTE:</p> <ol style="list-style-type: none"> <li>1. Essential spares and accessories of the main instrument for 5 years of trouble free operation are to be quoted separately in the Price Bid – Alternate Form</li> <li>2. Guarantee Certificate for a minimum period of 12 months is to be submitted.</li> <li>3. The instrument and accessories will be accepted after delivery and successful commissioning of the instrument at our site.</li> <li>4. Payment will be made after installation, commissioning and testing of the instrument at our site.</li> <li>5. List of customers including the DAE units should be given.</li> </ol> <p>Operating and Maintenance Manual of the instrument is to be supplied along with the instrument.</p>	STL / FQCL / PTL / BIO Quality Lab
31.	Shaking machine / Water Bath Shaker	<p>Reciprocating type, variable speed of 70 to 300 strokes per minute, with box type platform carrier(Size 79 cm L x 43 cm W x 8 cm H) fitted with heavy duty electric motor for continuous operation and built in 0-60 minutes times witch: to work on 220 V, 50 CV, With 50 cm x38 cm water bath, mounted on the shaking machine as above</p>	STL/ FQCL

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32.	Seed Germinator	<p> Temperature range: 5°C to 45 °C  Temp. fluctuation : ±0.5°C  Temp. Uniformity : ± 1°C  Temp. Precision : ± 0.1°C  No. of Chambers : Single  Temp. controlled : PID controlled  Relative Humidity Range : 10% RH to 95% RH  Humidity : Ultra sonic humidifier  External construction : Powder coated 304 grade  Lightening : Fluorescent lamp  Doors : Solid and glass door with magnetic gasket  Insulation : PU Foam  Shelves : Painted steel wire  No. of Trays : 5 tray  Refrigerant : CFC-free refrigerant  Compressor : Any branded compressor  Timer : automatic  Alarm : Audio/Visual/Alarm for temp. and humidity deviation.  Display : LED/LCD display with back up  Remote Monitoring : Optional  Caster Wheels: Optional  Certification : CE&amp;ISO  Power supply : 220 Volts </p>	STL
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## Annexure\_B

## Specification of GLC Columns:

Specification for column against Pesticide	Specification	Column Dimension	
		Cm (L)	mm (ID)
1	2	3	4
ACEPHATE	Glass packed with 3 % OV - 22S on Gas Chrom Q ( 120 - 140) mesh, conditioned at 250 °C overnight	038.00	002.00
Anilophos	Glass column, packed with 3 % SE – 30 on Chromosorb WHP (100 – 120 mesh)	100.00	004.00
Allethrin Technical	Glass column, coated with 20 percent ( m/v ) solution of DCQF-1 in acetone.	030.00	002.50
ALLETHRIN MOSQUITO MATS	Flame Ionization Defector (FID), Glass column, packed with 5 percent OV - 101 on Chromosorb WHP ( 80-100 mesh)	050.00	003.00
ALACHLOR	Thermal Conductivity Detector (TCD) Column Stainless steel packed with 10 percent SE-30 on 80-100 mesh Diatoport-S.	180.00	003.00
ALACHLOR	Flame Ionization Defector (FID), Glass packed with 5 percent SE-30 on 80-100 mesh Chromosorb WHP.	120.00	002.00
CHLORPYRIFOS + CYPERMETHRIN EMULSIFIABLE CONCENTRATE	Glass Column, packed with 3 % OV-101 on Gaschrome Q or chromosorb WHP (80 - 100 mesh)	100.00	2.00
BIFENTHRIN	Stainless steel column, packed with 10 percent OV-101 on chromosorb WHP 80/100 mesh	200.00	003.00 [OD]
Butachlor	Stainless steel Column, packed with 10 percent DC - 200 on chromosorb W-HP, 80-100 mesh	200.00	003.00
Bitertanol	Glass Column, packed with 10 percent OV 17 on Chromosorb WHP ( 100 - 120 mesh )	180.00	002.00
Hexaconazole	Stainless Steel Column, packed with 5 percent OV- 101 on chromosorb WHP (80- 100 mesh).	100	2.0
Chlorpyrifos	Glass, 3 percent OV-101 on gaschrome Q or chromosorb WHP (80-100 mesh)	100.00	002.00
Chlorpyrifos & Cypermethrin	Glass Column, packed with 3%AOV-101 on gaschrome Q or chromosorb WHP (80-100 mesh)	100.00	002.00
CHLOROTHALO NIL	Glass Column, packed with 5 percent OV - 225 on chromosorb WHP (80 - 100 mesh)	183.00	003.00
Cyfluthrin	Glass Column, packed with 2 percent OV - 101 on chromosorb WHP (100 - 120 mesh)	183.00	003.00

Cypermethrin	Stainless steel Column packed with 3 percent Dexil 300 on chromosorb. W-HP, 100 – 120 mesh.	075.00	003.00
Chlorfenvinphos	5 % OV – 225, Chromosorb W, HP ( 80 to 100 mesh ) (Mass Ratio Stationary phase/support 1/19 & Packing density 0.37g/ml	200.00	003.00
Diazinon* [TCD]	Glass Column, packed with 5 % SE – 30 on 60 – 80 mesh chromasorbW, AW or DMCS	120.00	006.30 [OD]
Ethyl Ester of 2,4 - D	3 % OV - 17	200.00	006.00
Edifenphos	Glass column, packed with 2 % OV – 101 on Gaschrome Q, 100 – 120 mesh	180.00	004.00 [OD]
Fenvalerate	Stainless Steel column, packed with 5 % OV – 101, Solid Support Chromosorb W, HP (80 to 100 mesh]	050.00	003.00
Fluchloralin [TCD]	consisting of 2'0 m stainless steel ( designation 04Cr14Ni10 ) tubing, of 2.17 mm internal diameter packed with 5 percent silicon XE 60 deposited on chromosorb G-AW-DMCS, 60-80 micron.5 % SE - 60	200.00	002.00
Fluvalinate	Glass column packed with 3 percent 0V-101 chromosorb, W-AW-DMCS ( 80-100 mesh)	050.00	002.00
Ipro benfos IBP / Kitazin	Glass Column, packed with 5 % OV – 1 on Gas Chrom Q (60 – 80 mesh)	360.00	002.00
Metalaxyl	Glass Column, packed with 10 % OV 101 on Gaschrom Q (80-100 mesh )	180.00	002.00
Metribuzin	<b>Glass Column</b> , packed with 10 percent OV – 17 Chromosorb WHP (100 - 120 mesh)	183.00	003.00
Pendimethalin	Borosilicate Glass Column, packed with 3 % OV – 225 on gas chrom Q, 100 – 120 mesh	130.00	006.00 OD & 3.0 mm ID
Phenthoate	Glass/stainless steel packed with 3 percent SE-30 on chromosorb W. HP, 100-120 mesh.	180.00	003.00
Phosalone [TCD]	stainless steel consisting of 400 mm, (designation 04Cr14Ni10 ) tubing of 6.35 mm outer diameter, packed with 10 percent GE-SE-30 on 125 to 250 micro Embacel DMCS treated.	040.00	006.35
Pirimiphos-methyl	Glass, 2 m long and 6 mm O.D packed with 10 percent SE 30 on acid washed celite 345 ( 100-120 mesh ). Condition the column by purging with nitrogen at 300°C overnight. After conditioning, pretreat the column with 3 injections each of 10 µl of Silyl 8 at one minute intervals to avoid tailing of the peaks and to obtain better efficiency.	200.00	006.00 [OD]
Propanil [TCD]	<b>Column</b> - consisting of 1.828 m stainless steel (designation 04Cr14Ni10) tubing, of 3.175 mm outer diameter and 2'362 mm internal diameter,	182.80	002.36



	packed with 3'6 g of 10 percent GE-SE-30 on 150-180 Micro Gas Chrom Q.		
Propiconazole	Glass /S.S, packed with 3 percent OV- 1or OV 101 on supelcoport, 80-100 mesh	180.00	002.00
Quinalphos	Glass 2 metres long and 3 mm i.d. packed with 3 percent OV-17 on 80 to 100 mesh gas chrom	200.00	003.00
Triadimefon	Glass, 1.8 m length and 2 mm ID packed with 10 percent OV 17 on Chromosorb WHP ( 100 - 120 mesh )	180.00	002.00
Tricyclazole Technical	Glass column, packed with 3 percent OV-17, Mesh 80 /100, CH-W/HP	200.00	2.5
CYPHENOTHRIN	DB-1 megabore column, Length = 30 m, 0.53 mm i.d. × 1.5 µm film thickness or equivalent	3000.00	0.53
BIFENTHRIN	Stainless steel, length = 2 m, OD = 3 mm, packed with 10 percent OV-101 on chromosorb WHP 80/100 mesh	200	3.00
Triallate [TCD]	Glass 1.2 m x 4 mm packed with 10 percent carbowax 20 M and 5 percent bentone 31 on 80 to 90 mesh Anakrom ABS	120.00	004.00

Date

Signature of the Tenderer

Place

Stamp





Government of Jammu and Kashmir  
Directorate of Agriculture Talab Tillo Jammu  
[www.diragriammu.nic.in](http://www.diragriammu.nic.in)

**Tender Notice**

Sealed tenders affixed with revenue stamps worth Rs.5/- (Rs. Five only) are invited for and on behalf of Governor of J&K State from the reputed manufacturers/duly authorized dealers/Government undertakings and registered supplier for supply of laboratory items viz Laboratories Equipments/Instruments for fertilizer Quality Control Lab./Pesticide testing Labs./Soil testing labs. for Agriculture both at Jammu and Srinagar. The rates should be quoted F.O.R Talab-Tillo Jammu and F.O.R Lal-Mandi Srinagar (J&K) . The detailed specifications of laboratory materials to be supplied in reference to this NIT is Annexed herewith as annexure A and B, are given below .''

S.No	Annex.	Name of item	Earnest Money (EMD)	Cost Tender documents
1	A and B	Instruments/Equipments	Rs.10000/-	Rs.500/-

Detailed copy of NIT indicating specifications and Terms and Conditions can be downloaded from our website [www.diragriammu.nic.in](http://www.diragriammu.nic.in). upto 14/08/2015 ,the last date fixed for sale of tender documents. Required Tender fee of Rs.500/- in the shape of bank draft favouring Member Secretary, Director of Agriculture Jammu, Payable at Jammu accompanied in separate envelope with the tender will also be accepted in respect of downloaded tender. Tender documents can also be had from the Purchase Section of Directorate of Agriculture, Talab Tillo-Jammu, against said cash payment. Tenders without payment of tender cost shall be summarily rejected. The tenders should reach the office of the undersigned on or before 17/08/2015 by 02.00 P.M.

  
Accounts Officer  
(Member Secy. S.L.P.C.)  
 Directorate of Agriculture  
Jammu

No: Acctts/PS /NIT/2015-16 / 384-408

Dated : 27/07/2015

Copy to the:

1. Director of Agriculture Jammu ( Chairman SLPC)
2. Director Finance, Agriculture Production Department.
3. Director Agriculture Srinagar
- 5.. Director of Industries and Commerce Jammu

for information and n/action please