

**DEPARTMENT OF AGRICULTURE
SHORT TENDER NOTICE**

Sealed tenders super scribed as **tender for purchase of Soil, Seed, Pesticides, Fertilizer testing, Bio-fertilizer and Bio-control laboratories equipments/instruments, glassware, filter papers and Chemicals** are invited from branded/reputed (ISI) Manufacturers/Authorized dealers by the Director of Agriculture, Himachal Pradesh, Krishi Bhawan, Shimla-5. The tender document along with detailed technical specifications terms and conditions may be obtained from the office of the Director of Agriculture, Himachal Pradesh on any working day from 10.00 AM to 5.00 PM in person or can also be viewed and downloaded from our website www.hpagriculture.com. The tender must be accompanied with security money @ 2.5 % of the total cost of items offered, in the shape of bank draft or FDR pledged in favour of the Director of Agriculture, Himachal Pradesh, Shimla-5. The tender should reach in the office of the Director of Agriculture, H.P. Shimla-5, on or before **22nd February, 2012 up to 1.00 P.M. and the same shall be opened on the same day at 3.00 P.M. in the presence of tenderers or their authorized representative** who so ever may like to be present in the tender proceedings.

HIM SUCHNA AND JANSAMPARK

S.No__

**DEPARTMENT OF AGRICULTURE, HIMACHAL PRADESH
KRISHI BHAWAN, SHIMLA-5.**

(Tender document for the supply of Soil/Seed/Fertilizer/Pesticides testing /Bio- fertilizer and Bio-control laboratories equipments/instruments, glassware's, filter papers and Chemicals in response to tender due on 22.2.2012 and published in)

Sr.No.	Particulars.	
1	Name of the ISI manufacturers/ Authorized dealer	
2	Complete Address with Telephone/Fax Number:	
3	Registration No. & validity.	
4	Income Tax /PAN No.	
5	Location and address of delivery point/Depot in HP:	
6	ISI/ISO Certificate's, of company/ items offered (attached)	
7	Rate offered (FOR Lab. In HP inclusive of all taxes) may be quoted strictly on the proforma given at Annexure" A,B&C".	
8	EMD deposited vide BD/FDR No.....dt..... for Rs	
9	Technical Specification Brochure's /literature of items attached	
10	Name and address of the Company/Firm Authorized Representative.	

I/We hereby declare that information given above and in Annexure "A, B& C" of the tender document by me/us on the day of _____ are true to the best of my/our knowledge. I further undertake that I will abide the terms & conditions at Annexure "D" of the tender document.

Dated;

Signature of Applicant/ Authorized Signatory
of the firm/company /Authorized dealer with seal.

ANNEXURE 'A'

LABORATORY EQUIPMENTS (SOIL/ SOIL SURVEY/ SEED/ FERTILIZER /PESTICIDES /
BIO FERTILIZER/ BIO-CONTROL LABS)

S. No.	Item & specification	Approx. Quantity	Rate per item (Brand wise) F.O.R. Labs in H.P. & inclusive of all taxes .	Details of earnest money @ 2.5% of cost of the item.
1	UV-VIS Spectrophotometer: Micro- processor based (Visible Range) Wavelength :340 -960 nm, Resolution: 0.2nm, Accuracy: ± 1 nm, Repeatability: ± 0.5 nm, Bandwidth: <2nm, Measuring mode:(%T), ABS, Concentration by K-factor and Multi-standard, Operating Modules: Single wave length :measuring %T, ABS & CONC, Spectrum Scan measuring %T, ABS Time Scan; Source :Tungsten Halogen Lamp; Power-230 V \pm 10%, 50-60 Hz. Standard Accessories: 10 nm path length four(4) cuvettes matched within ± 0.3 % .	1		
2	Flame Photometer: Digital/Microprocessor based; Complete with at least three filters of Potassium, Sodium , Calcium & Lithium with compressor, Measuring range 0-1999; Accuracy < ± 2 %, Sensitivity: Na and K 0.5 ppm and Ca =5 ppm, Li=2ppm;Linearity: < ± 1 % at mid point with 3ppm K set at 100, Display; at least 3 digit LCD Display. Photoconductive cell detector 230 V, 50 Hz AC, Aspiration rate 3-6 ml/min. Recorded output Device.	1		
3	pH meter: digital display, water tight, impact resistant, and corrosion resistant parallel temp. Indication, Main (230 \pm 10 V/50 Hz) storage pocket of pH electrode. Automatic calibration with NBS or technical buffer; Modes: pH-mV-0 ° C, pH range 0-14 resp. ± 1 mV ± 1 digit ;electrical accuracy ± 0.02 K ± 1 digit; automatic temperature compensation 0- 1 00° C, single electrode, memory upto 50 data set, with microprocessor based compatible with computer complete in all respect with measuring electrode combined glass calomel calibration and maintenance kit, manual and all required accessories.	2		
4	Hot Air Oven: Double walled, stainless steel elements on three sides. Gap between inside & outside should 75 mm and filled with pure glass wool; temperature 250°C; thermostatic control with sensitivity ± 1 °C digital temperature control; stainless steel with 3/4 inner chamber or more. Adjustable perforated shelves, Automatic timer and Air circulating fan operable on 220/230V, Single phase supply size of oven 24"x 24"x 24" (600 x 600 x 600 mm)/ 600x900x600mm Horizontal shape; digital display. Complete with all accessories.	2		

5	Rotary Shaker heavy duty : with brush less induction motor frequency drive to control speed & timer on 220/230 V , single phase power, Uniform circular motion in horizontal plane, platform size of 45X45/60x60 cm with 25 flask, holding clamp, complete to use.	2		
6	Hot plate Electrical: body made of stainless steel, digital temp controlled for continuous heating Max.300 °C to work on 220/230 V, Soak proof, Size of SS top 25x30x15 cm / or 45x60x15, rating1- 3KV, Complete in all respect.	2		
7	Hot plate Electrical: Rectangular body made of thick (18mm) mild steel painted with hammertone paint, upper portion is thick (25mm) iron platero mashine casted iron to with stand high temperature, digital temperature control upto300 C switch with sunvic energy regulator, indicator lamp, wire, plug, Soak proof , size 45x60x15, rating 3KV, Complete in all respect.	1		
8	Muffle Furnace: (Heavy Duty) S.S construction for durability having epoxy powder coating, digital indicator and controller, special pressed insulation to resist high temperature, size 12"x 8"x 8"/or5"x5"x10" workable temperature 1000°C, double walled ,complete to use	1		
9	Analytical/Electronic Weighing Balance: Top loading with digital display with approved calibration certificate: (i) Capacity 2 kg, Sensitivity 1 gm. (ii) Capacity 500 gm., Sensitivity 0.1 gm (iii) Capacity 310 gm., Sensitivity 0.01 gm (iv) Capacity 120 gm., Sensitivity 0.001 gm	2 each		
10	Water bath cum shaker- digital display, indicator-cum-controller, micro processed based, Temp, range 0-100 °C ± 0.1 °C , shaking speed 40 to 140 circle per minute, double walled made up of stainless steel, shaking tray size for 16 flasks of 100 to 500 ml complete to use.	1		
11	Digital Soil Moisture Meter:- range0-50; heavy duty probe 20cm long; complete in all respect and ready to use.	1		
12	Generator Set;- 5-10KVA output 220 volts, Honda or equivalent make	1		
13	Magnetic Stirrer with Hot Plate: stainless steel body, regulations; cap 2 liter, stirring speed & heating energy, Max. Speed 1200 rpm	2		
14	Soil Auger: Stainless steel Screw type/ V shaped for soil sampling/analysis	30		
15	Grinder Electrical - Complete in all respect	1		
16	Soil conductivity meter- digital display	1		
17	Bacteriological Incubator: Microprocessor controlled with automatic voltage stabilizer: Double walled with superior quality glass wool insulation inside –SS/ Aluminium & outside	1		

	mild steel, control 5-50 temp°C ± 0.5°C with inbuilt digital thermometer and automatic temperature control. Working on 220/230 V/50 Hz AC; shock proof , CFC free eco friendly compressor, Inside chamber size (HxWxD) 900x580x650, Inside chamber cap.12 cu ft i.e.0.339 cu. m. Should have temp setting knob & in built stabilizer, range-180-260V with indicator. Humidity control arrangement 55-95%, ± 3%, Complete to use with all accessories.			
18	Laminar Air Flow: for inoculation and isolation of micro-organism under sterilized conditions, Cabinet fabricated with thick board duly sunmica clad and interior surface epoxy painted for longer life working table made of thick board with SS clad at top, fitted with pre filter and HEPA filter (upto 99.99% and cold 99.97% without DOP and retaining air borne particles size 0.3 micron and larger) In built UV germicidal light , cock of gas and fluorescent lighting , size 4'x2'x2', workable at 220/230 AC.	1		
19	Autoclave:- Portable with stand(12" x 14") body and lid made up of heavy gauge SS plate fitted with pressure gauge upto 20 psi, unit should have spring loaded safety bulb for pressure adjustment and dead weight safety valve , hydraulically tested upto 40 psi, electrical fitting , cord and plug to work on 220/230 AC supply. 2KV rating	1		
20	Biomass Assembly: i)Vacuum Desiccators: ii)Vacuum Pump: Pressure double stage, 32 ltr capacity single phase motor.	1		
21	Bottle Top Dispenser:- for dispensing concentrated acids; 2-10ml,5-25ml,1-100ml capacity; digital variable volume; autoclavable; complete with adaptors and reservoir of 2.5- 5 litre capacity.	1		
22	Stop Watch of Superior quality.	1		
23	Thermometer : fitted with paper clip and rubber band (Superior quality)	1		
24	Dispensing Cup: Blender cup in the metal baffles	1		
25	Hydrometer: ASTM 152 H scale in g/L	1		
26	Keen Boxes: for water holding capacity	1		
27	Digital Top Burette (Titration System): (Brand Make): Compact Titration System, Accurate 2 nd decimal digital display at equivalence point, Easy grip hand wheel action and smooth precision gears for fast or drop wise titration make handling extremely simple reliable. Piston type, bottle top, adjustable to different size of bottles, conformity certified easy calibration alongwith safety prime venting valve, discharge system with resolution of 0.01 ml capacity, digital electronic volume display, capacity 50 ml, complete ready for use, Conformity	2		

	Certified with ISO 9001/2000.			
28	Micro pipette: with digital display, quick fixed volume, stream lined tip ejector, two step operation 10 µl capacity	2		
29	ISI Sieves of different sizes (i) Brass mesh size in mm : 2.8, 4.0, 13.2, 2.0, 0.85, 0.15, 1.70, 1.0, 9.5, 2.36, 1.18, 0.25, and 3.35 each (set) (ii) Pan brass for (ISI) sieves (mentioned as above) (iii) Lid brass for ISI sieves (mentioned as above)	1		
30	Sieve shaker: with ISI sieves of different sizes	1		
31	Refrigerator: Branded of different capacity with in built stabilizer, Frost free i) 175 Lts ii) 210 Lts ii) 300 Lts	1		
32	Upright Ultra Low Deep freeze: microprocessor controller based, inside SS cabinet & explosion proof, multiple alarm system in temp. variation, range upto -85°C capacity 500 litre vertical, inner dimension WXD _X H 600x700x1100 mm, safety cooling system LN ₂ in power failure.	1		
33	Water distillation set : All quartz , single/double distillation quartz boiler with in built heater, quartz condenser , complete with stand auto cut sensor cut of without heat exchanges , output i) 2.5Ltr/hour ii) 5Ltr/hour iii) 10 Ltr/hour	2		
34	Single Distillation Set; Glass with flask set; having capacity 5 and 10 litre/hr	3		
35	Moveable Trolley :	2		
	Inverter Auto Restart : Electronic start with Canopy , 180 AH, output 220 V/230 V, 6-12 V, single phased , capacity i) 1-3 KVA, ii) 5-7 KVA, iii) 7-12 KVA			
36	Sample holding rakes : Aluminium	3		
37	Air Conditioner : Split type with remote control, temperature provide 15-20° C, of 2-3 tonne capacity. Energy saver	1		
38	Acetylene Gas Cylinder	2		
39	Exhaust Fan :	1		
40	Aggregate separator “ Pressure Membrane	1		
41	Infiltrometer:	1		
42	Texture-triangle :	1		
43	Soil Thermometer: Scale of 0-60°, fitted on wooden body with brass cone at bottom, length of cone 60°	1		
44	Soil Moisture meter: For detaching saturation percentage of	1		

	water in soil workable 90 V battery, 3.5 Digital display, complete with 20 cm. electrode between wooden box.			
45	Binocular Microscope wild M-5A : calibration 45 degree incline having zoom ratio 1:7, objective zoom range 0.65 to 4.5x pared wide field eye pieces SWF 10x/22mm, working distance 100 mm, in built light stand (incident: 6V/15W lamp/transmitted 5W fluorescent lamp) magnifying range 6.5x to 45x with 10x eye piece, complete set with suitable packing :	1		
46	Simple Microscope : Standard set complete in built led illuminator and battery backup, focus by separate course and fine control, Achromatic objective 4x, 10x, 40x and 100x spring , oil immersion eye piece WF 10x, double layer mechanical stage , substrate condenser with spiral movement .Complete in suitable packing.	1		
47	Kjeldhal Digestion Unit : with specially designed fume duct to avoid leakage of fumes, B-24 Cone adapter for opening, suitable to fit energy individual regulator for 6 tests including 6 flask of 800 ml with socket and all accessories, heater and stand. Borosil	2		
48	Kjeldhal Distillation Unit : Electrically heated complete with single steel tabular stand, brass condenser, rack with a set of six heaters, regulator and borosil glass 800 ml kjeldhal flasks, complete set with all accessories, heater and stand, Borosil.	2		
49	Karl Fisher Titrator with inbuilt stirrer and separate control, microprocessor based digital display, 20 titration with complete accessories, moisture measuring range 10ppm to 100% of moisture, automatic moisture content calculation.	1		
50	pH based Automatic Titration system : with titroline chart software TZ2074 for nitrogen estimation compatible with distillation system for online titration; hardware connectivity kit with sensor to start autotitrator; digital display on LCD screen for N and other contents; display lighting matrix 64X128; automatic calibration 2out of 8 possible buffer solution, pH=2,4,4.01,6.87,7, ,9.18.10,12.45; electrode 18pH, platinum diaphragm, T- pt1000, L-120mm, Dia -12mm; measuring amplifier ph/mvwith12 bit input; dialogue mode DIN standard key board; Automatic titration parameter, rinsing& filling, endpoint pH determination and8 point titration,10stored method, auto timer, RS232 interface for PC connectivity& downloading of data, printer interface.	1		
51	Water Purification System : Reverse Osmosis (Type3) production rate 3L/Hr @ 25° C temperature, ultra pure water (Type 1), flow rate 0.5 lit per min., Resitivity-18.2(MO cm. at 25° C), Microorganisms <1 cfu/ml, Particulates <1 (0.2µm /ml, Pyrogen Level < 0.001 (EU/ml), Nucleases Level < 0.01 ng/ml, TOC <10 ppb. System should comprise of single water purification unit containing reverse osmosis, ion exchangeable and activated carbon technology and polishing device, inbuilt	1		

	reservoir > 5 lit for 3 type water storage, volumetric automatic dispensing function of ultra pure water from 0.25 L to 5 L in 0.25 L increments, inbuilt booster pump for reverse osmosis and delivery pump, able to recirculate water to maintain high water quality, filter options including 0.22 micron filter and a point-of use to sanitize., fully compressive, graphic colour LCD display information / system performance maintenance needs on alarms during mal function, standard graphic icons.			
52	Sealing machine	1		
53	Auotoclavable Bags	1 pack		
54	Biodegradable polythene bags : non-woven for soil sampling	I lac		
State Pesticide Testing Lab Items /Equipments				
55	Calibration weight Box E 2 or F1 Class :- Calibration weight Box E2 or F1 class with all minimum weight from 1.0 mg to 200 gm.	One set		
56	Furnish Flash :- Good quality made of standard brand to be used in pesticide laboratory.	One set		
57	Digital Flash Point Apparatus:- Microprocessor based Digital Flash Point apparatus for the analysis of Flash point of pesticide samples. It should be complete in all aspect including accessories like gas cylinders (2 Nos).	1		
58	Thermo hygrometer :- Measurement Range Humidity 5 to 98.0% RH; Temperature 15.0 to +60.0°C (5.0 to +150.0°F); Accuracy (TAMB - 25°C) Humidity: +/-2.5% RH, Temperature: +/-0.2°C, +/-0.4°F; Resolution-Humidity: 0.1% RH; Temperature: 0.1°C, 0.1°F; Sensors- Combined humidity/temperature probe, Humidity: High precision Macromolecule Humidity Sensor; Signal Output- Humidity: DC 0~1V, 10mV/%RH, impedance 600W, Temperature-DC 0~1V, 10mV/°C, 10mV/°F, impedance 600W; Display-Twin digital LCD display for temperature and humidity reading in the meantime without switching; Over Range Alarm Automatic, when humidity value out of the measurement range; Measuring Rate 2.5 per second; Data Memory -Last value memory by "Hold" switch; Power Supply- One 9V 006P or IEC 6F22 battery; Battery Life Approx. 120 hours (continuous operation,	1		
59	pH Meter:- Digital PH meter with combined electrode and stand complete in all aspect with pH range -2.00 to 20 , resolution 0.001 pH, combination ph electrode sensor, auto calibration up to 5 points with buffer recognition and print out calibration report , milivolt mv range 0 to 1999.9 mv minimum.	1		
60	Gas Flow meter digital:- Microprocessor based Digital gas flow meter for GLC with digital display of LCD / LED having flow range 1ml / min to 500 ml / min.	1		

61	Sieves with Calibration:- Different sizes sieves with calibration for Rotap Sieve shaker for the analysis of pesticide samples.	One set of each size		
62	UPS :- 3 & 5 KVA: Rating 3 & 5KVA on line. Input Parameter, Voltage Range- 230V. Permissible input voltage variation- +10%-20%, Frequency Range- 50HZ, Permissible input frequency variation-+/- 5.0 HZ, Output Parameter Voltage – 230 V +/-1.5%, Frequency Range- 50HZ+/- .10 %, Wage norms- Pure line Wage, Inverter efficiency-92% (on full load), Harmonic Distortion- Less than 20%, Switch over time- Nil, Over load- 150 % for one minute, Transient-+/-5% for 100 % step load, Battery Sealed maintenance free 64 AH with Two hour Back up. Indications Control indications like Inverter on / off, DC supply, Battery low, Battery change, over load etc. Trip Conditions, Meters-Output voltmeter and output Ammeter. Protection- Over voltage, Overload, over temperature, Forced air-cooling. Connectivity RS 232 / 485 Interfere	1 each		
63	Computer to be attached with GLC:- Computer with high speed processor having latest configuration for GLC.	1		
64	Septa for GLC:- 11.5 mm Septa used for GLC injector port. Made of high quality material Silicon / PTFE with capacity to bear minimum 200 injections and bearing capacity of high temperature about 350 Degee C.			
65	Gas Purification System with control panel & Gas Regulators:- Two/double stage SS body diaphragm gas regulators consists of inlet and outlets pressure gauge of hydrogen, Air & Nitrogen type complete in all aspect ready to use.	1		
66	Vacuum pump for HPLC:- Good quality vacuum pump for degassing of chemicals used in laboratory analysis work with maximum flow 15 LPM , Vacuum 22 ” hg, Maximum pressure 25PSIg, built in micro suction filter & no lubrication required.	1		
67	Autotitrator:- Autotitrator for different type of application as acid base, aqueous, redox titration, argentometric titration , complexometric titration & Karl fisher titration etc.	1		
	Total			

NOTE-The Equipments should be calibrated for State Pesticide Testing Lab (SPTL), Shimla-5.

ANNEXURE 'B'

LABORATORY GLASS WARES (ISI BRANDED/ BOROSIL OR BETTER SHALL BE PREFERRED) AND FILTER PAPERS (TO BE PROCURED FOR SOIL/SEED/FERTILIZER/PESTICIDES TESTING LABS. IN H.P. (upto one year as per requirement)

S N	Item	Capacity	Specification			Approx. Qty. offered	Rate/piece F.O.R. Labs. & inclusive of taxes, ED & Charges etc.	Amount (Rs.)
1	Beaker :griffin, low form, with spout graduated	50 ml 100 ml 250 ml 500 ml 1000 ml	(Approx. ODxHt(mm) 42x55 50x73 68x95 83x115 105x145					
2	Measuring cylinder: Graduated, single metric scale, with pour out, with hexagonal base	10 ml 25 ml 50 ml 100 ml 250 ml 500 ml 1000ml	Appx. height(mm)	Graduation Interval(ml)	Tolerance limit +(ml)			
			140	0.2	0.2			
			160	0.5	0.5			
			180	1.0	1.0			
			250	1.0	1.0			
			330	2.0	2.0			
			390	5.0	5.0			
			460	10.0	10.0			
3	Bottle reagent : plain narrow mouth with I/C flat head stopper	250 ml 500 ml 1000 ml 2000 ml 5000 ml	Approx.					
			<u>O.Dxht(mm) bottle</u>		<u>Size of I/C stopper</u>			
			64x147		19/26			
			80x172		24/29			
			104x200		29/32			
			129x265		34/35			
			190x320		39/40			
4	Flask: boiling Florence flat bottom	25 ml 100 ml	<u>ODxht (mm)</u>		<u>Neck OD (mm)</u>			
			40x90		20			
			66x110		26			

		250 ml 500 ml 1000 ml	85x144 105x170 133x200	34 33 42			
5	Flask conical: (Erlmeyer) Graduated narrow mouth	100 ml 150 ml 500 ml 1000 ml 2000 ml	<u>OD x ht. (mm)</u> 64x105 72x124 104x176 131x220 165x286	<u>Neck OD (mm)</u> 25 28 34 42 48			
6	Volumetric Flask: with inter- changeable stopper	5 ml 10 ml 25 ml 50 ml 100 ml 250 ml 500 ml 1000 ml 2000 ml	<u>Tol. Limit (+ml)</u> 0.05 0.05 0.08 0.12 0.20 0.30 0.50 0.80 1.20	<u>Stopper size</u> 10/15 10/15 10/15 10/15 14/15 14/15 14/20 14/20 24/25			
7	Funnels: plain 60 angle long stem	Diameter (mm) 50 75 100 200					
8	Pipette: measuring (i) Mohr type: (White marking) (ii) Transfer type: with one mark/ volumetric	1 ml 2 ml 5 ml 10 ml 25 ml 50 ml 100 ml	<u>Graduation interval (ml)</u> 0.01 0.02 0.05 0.1 0.20 -	<u>Tol.limit (+ml)</u> 0.006 0.01 0.03 0.05 0.10 0.10 0.16			
9	Pipette Automatic: (Tilt measure)	1 ml	Reservoir capacity 100 ml				

	complete with conical flask and interchangeable joint	2ml 5ml 10 ml 20 ml 25 ml	100 ml 250 ml 250 ml 500 ml 500 ml															
10	Test Tube: Round or flat bottom with rim (with and without graduated)	25 ml 50 ml 75 ml	OD x Lx wt(mm) 18x150x1.2 25x160x1.2 25x200x1.2															
11	Burettes: with straight Bore glass key stop cock.	25 ml 50 ml 100 ml	<table border="1"> <thead> <tr> <th>Graduation Interval</th> <th>Tolerance Limit (ml)</th> <th>Height Ht(mm)</th> </tr> </thead> <tbody> <tr> <td>0.10</td> <td>0.10</td> <td>530</td> </tr> <tr> <td>0.10</td> <td>0.10</td> <td>780</td> </tr> <tr> <td>0.20</td> <td>0.20</td> <td>830</td> </tr> </tbody> </table>	Graduation Interval	Tolerance Limit (ml)	Height Ht(mm)	0.10	0.10	530	0.10	0.10	780	0.20	0.20	830			
Graduation Interval	Tolerance Limit (ml)	Height Ht(mm)																
0.10	0.10	530																
0.10	0.10	780																
0.20	0.20	830																
12	Burette stand :Stout clamp with cork lined grip to hold 20" high	Single- Double-																
13	Kjeldahl distillation /Digestion flask:	500 ml 800 ml																
14	Test tube stand: Alluminium to hold 10.Wooden stout pegs & 10 accurate holes		<table border="1"> <thead> <tr> <th>Hole dia</th> <th>No. of holes</th> </tr> </thead> <tbody> <tr> <td>18 mm</td> <td>12</td> </tr> <tr> <td>25 mm</td> <td>12</td> </tr> </tbody> </table>	Hole dia	No. of holes	18 mm	12	25 mm	12									
Hole dia	No. of holes																	
18 mm	12																	
25 mm	12																	
15	Pipette stand: to hold 12 pipette (horizontal) plastic/PVC made																	
16	DESSICATOR: with cover borosil glass with lid .	150 mm 200 mm 250 mm																
17	Wash Bottle	500 ml	57 mm dia , 160 mm height.															

	LDPE: Plastic squeeze type, screw cap fitted in the stopper and delivery tube.					
18	Watch glasses:	Dia 75 mm 100 mm 125 mm				
19	Dropping bottles: fitted with round i/c stopper and rubber teat.	60 ml 125 ml 250 ml				
20	Tungs for holding flasks/ beakers : 12"long made of stainless steel jars lined with cork	Mini. Dia 250 mm				
21	Retort rings – made of cast iron with fixed bess head to take up to 12 mm dia rod.	Size 3" 4"				
22	Laboratory Rubber tube/tygon tubing	I-D 6 mm OD 3 mm				
23	Droppers with capillary jet and rubber teat.		5cm with 5 cm jet. 8 cm with 10 cm jet.			
24	Specimen jar bake lite screw cap	500 ml				
25	Polypropylene bottle	100 ml				
26	Gooch crucible :with sintered disc and porosity.G-o to G-4	30ml 50 ml				

27	Porcelain evaporating Basin china dishes	150x80 mm cap.x dia ml mm				
28	Filtering apparatus (Wills): complete with flanged jar, lid funnel and 250 ml beaker.					
29	Bottle aspirator: with i/c stopper, screw type key stop cock with i.c joint.	1000 ml 2000 ml 5000 ml 10000 ml 20000 ml				
30	Sample containers: (plastic) of different capacity.					
31	Trays drying heavy walls	320x180x51mm				
32	Receiver head	B-19/Bbend				
33	Splash head	B-29/B-19				
34	Soil measuring spectula	1 gm/10 gm.				
35	Crucible Tongs					
36	Sedimentation Cylinder	1 lit.				
37	Glass jars (silt cap) 10 Ltr capacity	OD x Hm 220x320 220x445				
38	Specific gravity bottles					
39	Stirrer(Glass)					
40	Pastel and Mortar	Med. size				
41	Wax paper	51x37cm				
42	Mask					

43	Apron					
44	Multiple Adaptor					
45	Gloves					
46	Culture Tube	18x150mm				
47	Glass Vials	200x40mm				
48	Test Tube Basket					
49	Utility Trays 2pack					
50	Micro Litre Pipette	0.01-0.2 0.2-1.0 1.0-5.0 2.0-10.0				
51	Micro tips for Micro Litre Pipette	-do-				
52	Petri dishes	100x17				
53	Mc Carteny Bottle Borosil	15ml				
54	Dilution Bottles	50ml 100ml 250ml 500ml 1000ml				
55	Innoculation needles/loops	12/12				
56	Plate master					
57	L- spreader					
58	Staining rack					
59	Rubber Stopper for Cylinder					
60	Beaker for physical analysis	600 ml				
61	Bottle top dispenser	0.5-2.5ml 2-10 ml 5-25 ml				
62	Pipette Controller	0.5.2.5ml				

63	Measuring Scoop	5,10				
64	Pycnometer Bottle	100ml				
65	Measuring beaker with handle	25, 50, 100ml				
66	Funnel Buckner type with sinster disc plain stand					
67	Qualitative filter paper: Whatman's No.1 i) Circle round of dia ii) Sheets of size Whatman's No.40 Whatman's No.41 Whatman's No.42 Whatman's No.50	9 cm 11cm 12 .5cm <u>15 cm.</u> <u>57x46cm</u> 9cm , <u>11 cm</u> 9cm, 11cm, <u>12.5cm</u> 9cm, 11cm, <u>12,5cm</u> 12.5 cm				
68	Germination paper special quality for seed testing purpose. Sheet size 48 X 30cm	Thickness less than 2mm capillary size 30 mm (Mini), non- toxic to seed		3 qtl		
69	Blotter paper	15 cm dia , white colour size 30mm (Mini) non-toxic to seed		One pack		

NOTE:- The earnest money for the glassware items mentioned in Annexure-B to be deposited Rs 25000/- and for item Filter papers Rs 30000/- only

ANNEXURE “C”

(a) List of Acids and Chemicals (AR/GR grade) Branded make.

S.N.	Name of Chemicals/Reagents	Approx. Qty. Reqd. (Kg/Lit.)	Rate offered (Inclusive of all Taxes) F.O.R. with Standard pack size	Amount (in Rs)
1	Acetic Acid	40 ltr		
2	Acetone	50 ltr		
3	Agar Agar	2 Kg		
4	AluminumHydroxide Gel	2.5kg		
5	Ammonium Acetate	50 kg		
6	Ammonium Chloride	5 kg		
7	Ammonium Molybdate	4kg		
8	Ammonium Nitrate	1Kg		
9	Ammonium Oxalate	5kg		
10	Ascorbic Acid	1 kg		
11	Barium Chloride	10 kg		
12	Benzal konium chloride	2 ltr		
13	Boric Acid	8kg		
14	BromoThymol Blue indicator	200gm		
15	Bromoxcresolgreen indicator	100gm		
16	Bromocresol purple indicator	100gm		
17	Bromocrisol Green solution	2 litre		
18	Bromothymol blue indicator	100gm		
19	Buffer pH-4, 7, 9.2	200 capsule(each		
20	Buffer pH-4, 7, 9.2 solution	5 litre each		
21	Calcium Chloride	10Kg		
22	Charcoal activated powder	50 Kg		
23	Chloroform	2.5ltre		
24	Citric Acid	1kg		
25	Clayton/Titan yellow	100gm		
26	Copper metal turning powder	2.5 kg		
27	Copper Sulphate	5 kg		
28	Devarda Alloy	1Kg		
29	Dextrose	2kg		
30	Diethanol amine	1 litr		
31	Diphenylamine	2 kg		
32	Di-Sodium Tetradehydrate	2kg		
33	DTPA Standards	500gm		
34	Erichrome black indicator	100gm		
35	EDTA	4kg		
36	Ethanol	10 litre		
37	Extra Lab Wash	50 ltr		
38	Ferrous Ammonium Sulphate	100kg		
39	Formal dehyde solution	10 ltr		
40	Glycerol	50 litre		
41	HCL Acid	200 ltr		

42	HCL N/10 Ampules	30 pkt		
43	Hydrogen peroxide	2 litre		
44	Hydroxylaminehydrochloride	500gm		
45	Indol Acetic Acid	50 gm		
46	Indol Butyric Acid	50gms		
47	Iron metal powder	2.5kg		
48	Magnesium metal powder	2kg		
49	Magnesium Oxide	5kg		
50	Magnesium Oxide	2kg		
51	Magnesium Sulphate	2 kg		
52	Magnesium Chloride	2kg		
53	Mannitol	2kg		
54	Methyl Paraben	1 kg		
55	Methyl Red indicator	500gm		
56	Methyl Red indicator	10 litre		
57	Molybdenum trioxides	10gm		
58	Molybdic Acid	1 kg		
59	NaOH N/10ampules	30 pkt		
60	Nitric Acid	2.5 litre		
61	Ortho phosphoric acid	10 litre		
62	Penta Chloro Nitrobenzene (PCNB)	1 litre		
63	Peptone	1 kg		
64	Phenolphthalein Indicator	2kg		
65	Potassium Chromate	2kg		
66	Potassium Dichromate	20kg		
67	PotassiumdihydrogenPhosphate	2 kg		
68	Potassium Nitrate	1 kg		
69	Potassium permanganate	10 kg		
70	Potassium Sulphate	10 kg		
71	Quinoline Pure	1 kg		
72	Salicylic Acid Pure	2kg		
73	Silica Zel AR	1kg		
74	Sodium Bicarbonate	15 kg		
75	Sodium Carbonate	5 kg		
76	Sodium Chloride	3kg		
77	Sodium Fluoride	10 kg		
78	Sodium Hydroxide	80kg		
79	Sodium hydroxide pellets	8kg		
80	Sodium Hypo Chloride	5 litre		
81	Sodium Hypophosphate	5 kg		
82	Sodium Molybdate	2kg		
83	Sodium Potassium Tartrate	1kg		
84	Sodium thiosulphate	1 kg		
85	Sodium Tetra Phenyl Boron	50gm		
86	Stannous Chloride	3 kg		
87	STPB	50gm		

88	Strontium Chloride	2kg		
89	Sulphuric Acid	200 liter		
90	Tetrazolium Salt AR(ITC)	50gm		
91	Tri-ethanol amine (T.E.A.)	10 litre		
92	Zinc Dust	2kg		
93	Zinc Metal Powder	3kg		
94	Zinc, Copper, Iron, Manganese standards	1 kg each		
95	Zinc, Copper, Iron, Manganese Solution	500 ml each		
96	Acetonitrile HPLC	10L		
97	Bromothynol blue GR (pH indicator)	500ml		
98	Benzene GR	2.5 L		
99	Carbon Tetra chloride GR	2.5L		
100	Carbon tetra chloride HPLC	5L		
101	Chloroform HPLC	5L		
102	Carbon Disulphide GR	2L		
103	Calcium Carbonate GR	500gm		
104	Cyclo Hexane HPLC	5L		
105	Di Chloro Methane GR	2.5L		
106	Di Chloro Methane HPLC	5L		
107	Hexane HPLC	5L		
108	Isooctane HPLC	5L		
109	Lead acetate GR	2Kg		
110	Perchloric Acid GR	2.5L		
111	Potassium Iodide GR	500gms.		
112	Urea Crystal GR	1 Kg		
113	Water for HPLC	5L		
114	Propanol HPLC	2.5L		
115	1, 4 Dioxane HPLC	2.0L		
116	Iso octane HPLC	2.5L		
117	Vaccum Grease GR	1Kg		
118	Toluene HPLC	5L		
119	Acetic Anhydride GR	2L		
	Total			

(b) List of Pesticides Reference Standards: All standards should be NIST traceable (National Institute of Standards)

Sl. No.	Name of Pesticides Reference Standards	Rates quoted for pack of 0.5 gms, 1.0 gms and 2 gms pack.			Amount (Inclusive of all Taxes) F.O.R. Lab.
		(0.5gm)	(1.0gm)	2.0gm	
1.	Isoproturon				
2.	Metalaxyl				
3.	Hexaconazole				
4.	Cypermethrin				
5.	Chloropyrifos				
6.	Atrazine				
7.	Malathion				
8.	Glyphosate				
9.	Hexythiazox				
10.	Deltamethrin				
11.	Propergite				
12.	Profenofos				
13.	Acetamiprid				
14.	Fenpyroximate				
15.	Butachlor				
16.	Monocrotophos				
17.	Spiromesifen				
18.	Quinalophos				
19.	Chlorothalonil				
20.	Flusilazole				
21.	Methyl Parathion				
22.	Carbendazim				
23.	Phorate				
24.	Metribuzin				
25.	Imidacloprid				
26.	Dinocap				
27.	Carbosulfan				
28.	Fepronil				
29.	Propiconazole				
30.	Dichlorvos				
31.	Thiophenate Methyl				
32.	Fenvalerate				
33.	Bromadiolone				
34.	Acephate				
35.	Alphacypermehrin				
36.	Diazinon				
37.	Lindane				
38.	Penconazole				
39.	2,4 D Ethyl ester				
40.	Anilofos				
41.	Azadirachtin				
42.	Triazophos				

43.	Ethion		
44.	Pendimethline		
45.	Isoprothiolone		
46.	Lambda cyhalothrin		
47.	Thiamethoxam		
48.	Fenarimol		
49.	Dimethoate		
50.	Alphamethrin		
51.	Chlorothalonil		
	Total		

(c) Primary Standard required for SPTL, Shimla-5

S. N.	Name of Primary Standard	Rates quoted for Minimum pack size inclusive all Taxes. 0.5 gm, 1.0 gms 2 gms	Amount (Inclusive of All Taxes) F.O.R. Lab
1.	pH Tablets		
2.	Potassium Hydrogen Phthalate		
3.	Sodium chloride		
4.	Potassium chloride		
5.	Sodium Bicarbonate		
6.	Potassium dichromate		
7.	Sodium carbonate		
8.	Potassium Iodate		
9	Holmium Oxide Standard required for calibration of UVVisible spectrophotomer	100gm	
	Total		

Note: The earnest money for items of Annexure –C (a+b+c) to be deposited Rs 25000/-.

(d) (i) INSTRUMENTS/EQUIPMENTS AND GLASSWARES TO BE CALIBRATED IN THE STATE PESTICIDE TESTING LABORATORY, SHIMLA-5.

Sr. No.	Name of Instruments	Calibration Charges quoted
1.	Gas Liquid Chromatography	
2.	High Performance Liquid Chromatography	
3.	Fourier Infra Red Spectrophotometer	
4.	UV Visible Spectrophotometer	
5.	Analytical Balance	
6.	Electronic Top Pan Balance 2000 gm Capacity	
7.	pH Meter	
8.	Magnetic Stirrer	
9.	Hot Air Oven	
10.	Heating Mantels	
11.	Reciprocating Shaking Machine	
12.	Rectangular Water Bath	
13.	Deep Freezer	

14.	Rotary Vacuum Evaporator	
15.	Wrist Action Shaker	
16.	Electronic Top pan balance 500 gm capacity	
17.	Electronic Top pan balance 5000 gm capacity	
18.	Laboratory centrifuge	
19.	Sieve Shaker Gyrotory	
20.	Rotap Sieve Shaker	
21.	Test Sieves	
22.	HPLC Syringe	
23.	Assemblies Mancozeb, Isoproturon & Zinc/Aluminum Phosphide Parts like heating mantles	
24.	Refrigerator	
25.	Thermometer 50° & 200° C	
26.	Water Bath	
27.	Digestion Unit In Fume Cupboard	
28.	Flash Point Apparatus	
29.	GLC Syringes	
30.	pH Electrode	
31.	Digital Burette	
32.	Dehumidifier	
33.	Deionizer	

(ii) Name of Glassware's to be calibrated		
1.	Burettes Automatic Zero Reservoir 50 ml	
2.	Burette 10 ml , 25 ml, 50 ml & 100 ml	
3.	Volumetric Flask 5 ml,10 ml, 25 ml, 50ml, 100ml, 200 ml, 250 ml, 500 ml &1000 ml	
4.	Measuring cylinder without Stopper 10 ml, 25 ml, 50 ml , 100 ml , 250 ml, 500 ml & 1000 ml	
5.	Measuring cylinder with Stopper 25 ml, 100ml , 500 ml & 2000 ml	
6.	Pipettes 1 ml, 2 ml, 10 ml, 25 ml, 50 ml & 100 ml capacity	
7.	Suspensibility cylinder 250 ml capacity	
8.	Crow Receiver 100 ml	

Note: The earnest money for the Calibration of SPTL lab items mentioned d (i) above i.e. equipments and glassware's to be deposited Rs 10000/- only

TERMS AND CONDITIONS

1. The envelop containing tenders should be subscribed as **tender for supply of laboratory equipments/glass wares / filter papers/ Chemicals etc. due on 22.2.2012** and should sealed properly.
2. The total quantity offered for sale be quoted in the tender with make/brand of company.
3. The rates be quoted F.O.R destination in H.P State Fertilizer Lab./Soil Testing Labs./Seed Testing Lab./Soil Survey Lab./Pesticides Testing Lab/Bio-fertilizer Production Lab/Bio-control Lab in Himachal Pradesh.
4. The rates should be quoted inclusive of all taxes, excise duty, surcharge/VAT/entry tax /installation charges etc. However, form "D" will be supplied if it is required.
5. The tender should be accompanied with earnest money @ 2.5% of total cost of item or amount mentioned in the shape of bank draft or FDR or saving certificate pledged in favour of Director of Agriculture Himachal Pradesh, Shimla-5. The tender without earnest money will be summarily rejected.
6. The tender should enclose brand/propriety certificates and authorized dealer should enclose authorization letter from company / manufacturers they represent.
7. The earnest money will be released to the party whose tender are not accepted.
8. The earnest money will be released to the party whose tender is accepted, after complete satisfactory transactions are over.
9. In case the party/parties whose tenders are accepted, fails to supply the committed quantity of material, the earnest money will be forfeited and offer for supply of material will stand automatically cancelled.
10. The material will be inspected by the officers of the Department before despatch.
11. No cutting/over writing would be allowed in the tender document. However, unavoidable correction must be signed by the tenderer.
12. VAT / sales tax clearance certificates from the competent authorities for the preceding year should be accompanied with the tender, failing which tender is liable to be rejected.
13. **The sale outlets/depots/dumps of the firm should be located within the territory of Himachal Pradesh and supply/purchase will be made from these outlets.**
14. The approved rate shall remain operative for a period of one year from the date of finalization of the rates.
15. The payment will be released after the successful installation and commissioning of the equipments and supply of material in the concerned labs.
16. Conditional as well as fax/telegraphic tenders shall not be acceptable.
17. The quantity of items may increase or decrease subject to the requirement and availability of funds.
18. If the date of submission/opening of tenders happens to be holiday, the same shall be received /opened on the next working day.
19. All the disputes shall be settled within the jurisdiction of the High Court of HP.
20. The Director of Agriculture, H.P. Shimla-5, reserves the right to reject any or all the tender without assigning any reason.
21. The tender should be accompanied with a complete brochures and specifications of items/equipments offered for supply.
22. Other conditions, if any, shall be announced at the time of tender opening

Director of Agriculture,
Himachal Pradesh.