



BIDHAN CHANDRA KRISHI VISWAVIDYALAYA
PO- Krishi Viswavidyalaya, Mohanpur (741252), Nadia, W. B.

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Ref. No. CAAST/18-19/06

Date: 11.06.2019

The Principal Investigator, CAAST on “Conservation Agriculture” funded by the World Bank under ICAR-National Agricultural Higher Education Project (NAHEP) is inviting quotations from most competent and bonafide vendors /parties/ distributors/ dealers/agents/manufacturers having registration of GST for supply of following items to the **Main Campus, F/ Agriculture, Mohanpur, Nadia- 741252** as per specifications appended below.

Terms & Conditions:

- I. Submission of quotation: the quotation shall be submitted **within 25.06.2019 up to 5.00 pm.**
- II. Preparation of bids: the tender should be submitted under two bids system with validity for a period of 6 (six) months. **Separate quotation must be submitted for each item mentioning the name of quoted item at the top of the envelop, otherwise bids liable to be cancelled.**
- III. Technical bids will be evaluated by the Indenter and other expert members of the office and the financial bids will be opened of those bidders who qualified in technical bids.
- IV. Price: The price of items, including imported ones, should be quoted in INR & net per unit (including taxes and duties, etc). However, University will provide valid DSIR and authorization certificate to the clearing agent, if required.
- V. Quoted rates must be FOR DESTINATION (including packing, insurance and delivery charges up to the **Main Campus, F/ Agriculture, Mohanpur, Nadia- 741252** with satisfactory installation and demonstration. The bidders must stipulate the delivery period of the same.
- VI. Reduced rate of GST (5%) is applicable to the University. Requisite certificate will be issued by the university authority.
- VII. Payment will be made after satisfactorily performance of the items.
- VIII. The vendor should have experience for supplying of different items to any Government / Semi Government organization.

IX. Important safety standards

The instrument must confirm to International EMC and Safety standards.

X. Warranty

Warranty period minimum 3 Year or more (as mentioned in the detailed instrument specification) from the date of installation. Manufacturer must have their own dedicated Service Centre available in India specifically in Kolkata and details of Service Centre must be provided while submitting their Quotations

XI. Supporting documents

- Bid papers should accompany authorization certificate from original manufacturer, trade license, GST registration, proprietary certificate (if any) etc.
- Photocopy (self attested) of the original supporting document in favour of the specification –claim for each item must have to be submitted separately, if available.
- User list along with certificate from reputed users also need to be submitted.

xii. The Viswavidyalaya reserves the right to accept or reject any tender without showing reason.

Sl. No.	Name of the Item/ Equipment	Detail Specification	Qty.
1.	Cone Penetrometer with Datalogger	Measurement Insertion Depth Range upto 90 cm, Measuring Interval: 0 to 90 cm (Each Centimeter), Measurement Range (kPa): 180 kPa to 4900kPa (1.8 Kg to 50 Kg), Accuracy: < $\pm 1\%$, Data Storage Capacity: 1000 locations, Communication method: Bluetooth, Data Download: USB cable, Display Unit Power source and Cone Penetrometer Power Source (with Rechargeable battery), GPS Measurement System: WGS-84, Internal Protection: Dust proof, Drip proof structure, Main Unit Operating Temperature: 0 to 50 °C, Warranty: Three years full comprehensive warranty from date of installation	1 No.
2.	Sieve apparatus	Yoder type (wet sieve shaker), mechanical oscillation powered by a gear reduction motor having amplitude of oscillation 3.8 cm and frequency of oscillator 30-35 cycles per minute. Four nests of sieves working simultaneously each having 12.5 cm diameter and 2.0, 1.0, 0.50, 0.25, 0.10 and 0.05 mm diameter brass fitted the oscillator. (Mesh nos.- 10, 18, 35, 60, 150 & 300). A steeled drum 16 gage with an out let and iron stand, all complete. Warranty: Three year full replacement warranty	1 No.
3.	Oven	Hot air oven, inner dimension- 24" x 24" x 36", at least 6 selves, Max. Temperature at least 250°C, Temperature controller and digital display, Temperature accuracy- $\pm 1^\circ\text{C}$, Temperature uniformity- $\pm 0.5^\circ\text{C}$) equipped with standard insulating material, outer surface should be electric resistant. Warranty: Three year full replacement warranty	2 No.
4.	Weighing Balance	High precision analytical electronic balance with weight range, Capacity: 220 g, Readability: ± 0.0001 g, Tare range: 220 g, Response time: 2 second or less, Repeatability: = or ± 1 mg, Linearity: = or ± 2 mg, Calibration: Internal, Balance housing: Die-cast aluminum, Plastic ABS, Overload protection, Levelling feet, Level indicator, AC adopter, Port for computer and printer, Warranty: Three year full replacement	2 No.

		warranty	
5.	pH Meter	Digital pH meter with accessories and temperature probe, Instantaneous reading with temperature correction, Additional glass electrode, Warranty: Three years full comprehensive warranty from date of installation.	2 No.
6.	Conductivity Meter	Digital conductivity meter with accessories and temperature probe, Instantaneous reading with temperature correction, Additional glass electrode, Warranty: Three years full comprehensive warranty from date of installation.	2 No.
7.	Flame Photometer	Four filters (Na, K, Ca and Li) , LED Display, Oil Free Air compressor, Air Filter with Pressure Regulator & Gauge, Atomizer Tube, Gas Lighter, Sample Beaker (05 Nos), LPG Tube, Air line PU Tube etc. Range : Na, K, & Li :1-100 ppm and Ca:15-100 ppm, Sensitivity : Na, K, & Li :0.5 ppm and Ca:15 ppm, Linearity : < 3%, Reproducibility : 2% CV for 20 samples, Detector : Photo multiplier Tube, Ignition System : Manual, Ignition Flame System : LPG & Dry Oil Free Air, Gas Control : Adjustable with Knob, Automiser : Axial Flow Type, Oil free Air Compressor : Supplied with Built-in Air Filter with Pressure Regulator & Gauge to deliver stable and moisture / oil free air supply, Power Supply : 230 VAC ±10%, 50 Hz, Additional two atomiser must be provided Warranty: Three Years full comprehensive warranty from date of installation	2 No.
8.	Atomic absorption Spectrophotometer	Hardware: Optics: Narrow beam optics. Optics should be fully sealed and mirrors quartz overcoated, Wavelength range: 185-900 nm, Monochromator: Focal length 300 mm or equivalent . Preferably Czerny-Turner or equivalent monochromator with computer controlled wavelength selection, Slits: Automated slit selection. Settings, 0.1, 0.2, 0.5 and 1.0 nm plus one reduced height slit of 0.5 nm, Grating : Holographic blazed grating with line density at least 1800 lines/mm, Dispersion: better than 1.0 nm/mm , Detector : Photomultiplier Tube or Solid state covering full wavelength range., Background corrector High intensity deuterium background corrector. Range 185-425 nm to 2.3 Abs., 2 ms response. Electronic modulation with automatic gain attenuation. Easily aligned and replaced by the user, Lamp System: Fully software controlled 8 lamp fixed positions. Selection of lamps through software for FAST SEQUENTIAL mode of operation (analysing at least eight elements in one time sample aspiration), Gas control: Fully programmable gas control system. Rapid regulation for gases. PC controlled gas flows. Automatic oxidant changeover facility should be there, Safety system: There should be adequate safety measurement such as separate ignite/flame-off buttons, internal gas connections made automatically, flame shields and protection against heat and UV radiation. External adjustment of all burner and spray chamber controls. Violation of any safety interlock should prevent flame ignition or should extinguish existing flame, Flame atomization system. Spray chamber should be fluorinated high density polyethylene design for aqueous and organic solutions, Impact beads should be externally adjustable, Nebulizer: Adjustable nebulizer with inert platinum/iridium capillary and PEEK venturi for corrosion resistance. Burners should be of inert material. Air/acetylene and nitrous oxide/acetylene burner to be offered. Should provides external burner rotation. Should have facility for PC controlled burner adjuster with auto setting of burner height. Performance: >0.9 absorbance with precision of <0.5% RSD from ten 5 sec. integrations for 5 mg/L Cu solution. Software: Windows 7 based 'worksheet' layout running on external PC with mouse or keyboard control, Measurement modes: Absorption or flame	1 No.

		<p>emission using PROMT, Pre-read delay variable from 0-999 secs. Up to 20 replicates with read time from 0.1-30 secs. Minimum Signal Facility skips to the next sample if the first measurement is less than the specified minimum reading. Different number of replicates can be selected for samples and standards, Sampling modes: Manual or autosampling with flame, furnace and vapor operation, On-line cookbook: Analytical methods 'cookbook' information should display for each method in the Method window. Should include typical calibration graph and list of alternative wavelengths with comparative sensitivities and any other analytical recommendations, Data handling: All raw data, signals (when selected), method and sequence parameters stored in the worksheet database. Furnace data should be stored in both height and area. Editing of results by masking replicate or solution results and post run modification of peak measurement mode with automatic recalculation of edited result. Calibration data can also be edited by masking standards. Post-run application of alternative algorithm, Data import/export: Facility to transfer current data can be transferred directly into third party software using Microsoft ActiveX technology. In addition, data can be exported during run or post-run in ASCII and PRN file formats., LIMS support: Facility to direct data to a serial port for real time transfer to LIMS in ASCII or PRN file formats, Sample labels and sample select marks (samples selected for analysis) can be transferred between a LIMS and the worksheet software, Help system: Context sensitive help with extensive index, graphics, videos and cross referencing should be available</p> <p>Accessories:</p> <p>Graphite Furnace System: should be fully automated 'Constant Temperature Zone' graphite furnace. Dynamic Feedback Temperature Control with cooling water temperature compensation for enhanced temperature accuracy should be there. Should have up to 20 temperature steps per program, temperature programmable from 40-3000 °C with maximum heating rate 2000 °C/sec. There should be choice of two inert gases with 0 to 3.1 L/min gas flow programmable in 0.1 L/min increments. The furnace work head must be of solid titanium for maximum corrosion resistance. Quartz end windows for high light transmission. Graphite tube must be enclosed in an inert gas atmosphere by a one piece graphite shroud for maximum tube life. There should be at least five safety interlocks monitor inert gas pressure, cooling water flow and temperature, graphite tube and transformer temperature.</p> <p>Autosampler for graphite furnace: Automatic Programmable Sample Dispenser for Graphite Furnace. There should be capacity for 50 samples in 2 mL vials with five central 25 mL vessels for bulk solutions. Should automatically prepare up to a 10 point concentration or standard additions calibration from one bulk standard. Premix mode should be provided for use with manually prepared standards. There should be automatic addition of up to two chemical modifiers with pre and/or co-injection of modifiers and automatic over range volume reduction. There should be 'Hot injection' for Fast Furnace Analysis, programmable from 40-200 °C injection and programmable injection rate. There should Automatic flow through rinse of the dispensing capillary after each injection.</p> <p>Vapour Generation Accessory: It should be modular continuous flow or Flow injection type Vapour Generation Accessory for trace level determination of elements like Hg, As, Se etc. at µg/L concentrations. Typical precision should be 1-2% RSD.</p> <p>Hollow cathode lamps: coded Single element hollow cathode lamps for analysis of various elements (Hollow cathode lamps for Fe, Mn, Zn, Cu, B, Hg, Cd, Se, Al, Pb, Cr, Ni, As, Ca, Li, Si & Mo must be supplied with the instruments). The lamps should have Guaranteed 5000 mA</p>	
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		hour of usage time. Utilities: Branded PC and Printer. Should be quoted with necessary gas cylinders (Two no. each), regulators, exhaust hood, compressor, chiller, gas purification system, Online UPS with 2 hour power backup for all components (AAS, VGA, compressor etc.), split AC 2.0 Ton Capacity, Type I & II water purification system etc. Warranty: Five years full comprehensive warranty from date of installation	
9.	Permeameter	Closed system, Sample rings diameter ~ 50 mm and height ~60 mm, At least 25 samples can be run simultaneously, Pump Type: Eheim 1048, Power rating- 230 V/50 Hz, Power- 10 W, Capacity- 10 liter per minute, suitable for continuous use under water to a max. depth of 1 meter, Maximum lift 1.5 m, Battery operated measuring bridge to measure the water levels, Suitable water tank with the system, Warranty: Three years full comprehensive warranty from date of installation	1 No.
10.	Hydrometer	ASTM Soil Hydrometer, 152H, 68°F, Bouyoucos Scale	2 No.
11.	Muffel Furnace	Inside Chamber Size: at least 6" x 6" x 12", 3.6 L approx with swing aside door at the front, Furnace construction: Double shell steel case with cooling fan to keep outside case cool, High purity alumina fiber insulation for max. energy saving Heating element The chamber section should be heated by six to eight Super Kanthal Molybdenum disilicide heating elements (Super 1800 grade MoSi ₂) suspended in a chamber made of high temperature refractory fiber lined with a combination of ceramic fibre blankets. Standard Working Temperature at least 1600° C (continuous), Temperature Control: PID temperature controller, automatic power control and programmable with necessary safety features, Heating Rate: The furnace should be of fast heating type with the maximum attainable temperature should reach as a ramp function in less than one hour, Temperature Accuracy: +/- 1.0 °C, Thermocouple: Pt. Pt. Rh. Thyristor controller will be provided along with the furnace to measure the temperature with Recrystallized alumina sheath & connecting holder complete set. Cooling Fan/ Air Circulation Attached with Furnace, Provided inside the control unit to protect Costly component Max. Power Upto 8 KW Certificate CE certified, Three Years full comprehensive warranty from date of installation. Accessories: Al ₂ O ₃ Sample Plate: 1 pcs, Al ₂ O ₃ Furnace Door Block: 1 pcs, Protection Glove: 2 pairs, Crucible Clip: 1 pair, Crucibles: 6 pcs Warranty: Three years full comprehensive warranty from date of installation	2 No.
12.	Shaker	Type: variable orbital rotary motion. The shaker built on a iron angle chassis resting on vibration absorbing rubber feet. Cabinet shall be made of M.S. sheet (18SWG) coated with epoxy paint finish. Dynamically balanced mechanism comprising to triple eccentric-shaft drive with H.T. Springs on four corners for counter balancing of uniform vibration free rotation with load. Orbital shaking mechanism is built through a triple eccentric drive continuous duty powerful ball bearing 'DC'-drive 2HP PMDC-Motor, belt driven rotating platform with rotor on nine ball bearing in a circular orbit for very smooth movement. Stepless and adjustable auto-speed regulator from: 50-250 rpm with proximity circuit for counting rpm shall be provided. Heavy gauge stainless sheet (304) shaking tray fitted with S.S. (304) lotus type clamp for holding conical flask of 1000/500 at lower deck and 500ml/250ml/100ml at upper deck. Capacity: At least 50 flask of 250 ml equivalent. Size of each tray: 650 x 650 mm (made of S.S. 304). Power requirement: Single phase 220/230 V, AC mains. Operable directly through MCB. Warranty: Three years	1 No.
13.	Laboratory Microwave Oven	General Requirement: simple in operation and with turntable, Supply voltage: 220 volts, 50Hz. Power Consumption: 1300W approx. 4.	1 No.

		Microwave Power: 600-900W, Microwave Frequency: 2400 MHz, Convection power-2000 W, Oven Capacity: 32 litre, Soft/one touch control with Timer, Safety: The equipment shall be bonded to earth effectively in accordance with the I.E.E. Wiring Regulations. Sufficient Safety Interlocks to prevent leakage of microwave. Accessories : supplied with a glass/ceramic tray, Microwave compatible gloves, Three Years full comprehensive warranty from date of installation	
14.	Infrared thermometer	Temperature range:-30°C to 500°C (-22°F to 932°F), Emissivity- 0.10 to 1.00, Optical resolution-10:1 (calculated at 90% energy), Display resolution-0.1°C (0.2°F), Three year full replacement warranty	1 No.
15.	Automatic weather	1) Maximum thermometer, 2)Minimum thermometer, 3)Dry bulb and wet bulb thermometer/ Relative, humidity sensor, 4)Pyranometer, 5)Wind velocity and direction, 6)Rain gauge, 7)Net Radiation Sensor, radiometer Data Loggers 12 Analog ,4 Event and 2 relay channels,1 Wet Sensor (Digital Input Channel and inbuilt SDI-12 Interface Includes Delta LINK PC Software, USB Cable ,Quick Start Guide and Software and Manual Disk. Accepts the voltage, resistance, current, potentiometer, bridge, counter, frequency and digital state inputs. setup logging sequences and provides control over reading frequency, sensor type ,thresholds units Simulator: Software for logging programs which can be tested before real time activation. For applications involving measured environmental variables can be changed to test how the program responds. Years of logging time can be simulated in a few minutes for reporting. 2 Relay outputs expandable up to 6 Memory: 4 Mbytes of FLASH memory storing 2.5 million readings (typical), exported as text file with caching for large datasets. Power Source : Internal power 6x AA alkaline cells, typically sufficient for 300k readings. RH/Precision Air Temp Sensors (2 K Thermistor) Fitted with 5 Meter Cable. Both Mounted in same solar radiation shield. Solar Energy Flux Sensor (5m cable) (Solar Radiation) Rain gauge, compact (6m cable), including leveling base plate Combined Wind Speed and Direction Sensor (supplied without cable) Dome Net Radio meter Supplied with 5 pairs of domes and gaskets for 12 months typical use. Radiometer (7m cable) Supplied along with support arm type NR2/ARM. Solar Panel ,Mast And Accessories Enclosure and 12V Wiring Kit for GP2 Logger For mounting onto Delta-T masts. Back plate mounted 12V battery wiring system with protected input power terminals. Comprises lockable IP53 steel enclosure, cable glands (supplied with 12 glands as standard) and trunking. The cost of the enclosure includes the fitting and or direct partial pre-wiring of any logger power supplies Dimensions: 500(h) x 400(w) x 250(d) cms NB: Does not include battery, charger or solar panel. M2-FSG 2m mast, excluding logger canopy For GP2 Logger. Comprises 2m mast, 1m cross arm, fixed base plate assembly, 3x steel guy wires and stakes, light sensor mounting and user manual	1 No.
16.	Deep freezer	-20°C: Capacity: At least 400L, Castor wheel mounted, CFC/HCFC free, At least 6 shelves + drawer, Defrost: manual or automatic (preferred), Single or double door, With locking system, At least 10 installation certificates in different Institutes and Research centres should be provided, Warranty: Should provide three years full comprehensive warranty. -80°C:	2 No. (1+1)

		Stability, reliable, user-friendly and easy cleanable, should be ideal for laboratories. Temperature range: - 60° C to -86° C, Low noise level, Castor wheel mounted, Defrost: manual or automatic, Single door, Capacity: at least 200 L, Model: vertical, At least two shelves, Eco-friendly, CFC/HCFC-free Nature R refrigerant, Efficient cyclopentane insulation; Integrated lock to prevent unauthorized access, High/low temperature alarm, User-friendly and maintenance-free, Voltage: 220-240 V, Frequency, Hz : 50, Battery backup, At least 10 installation certificates in different Institutes and Research centres should be provided Warranty: Should provide three years full comprehensive warranty.	
17.	Laminar air flow	Laminar Cabinets (Horizontal) Inner Chamber & Outer Chamber made of stainless steel high efficiency particular air filters, to achieve the air purification upto 0.3 Microns in Working area. Working area at least 4 ft x 2 ft x 2 ft, Blower fitted with ¼ HP Motor, with RPM 1200 to 1400, Pre-filters made of high grade nylon Net fixed in S.S. frame for first Stage air purification, through blower system. Closed Inner Chamber fitted with HEPA having very accurate performance rate of air filtration, rated 99.99%, resulting in ceasing all air bore molecule of particle upto 0.3 micron in working Area of Laminar Bench. Working area of Laminar Airflow Cabinets illuminated by fluorescent light; cabinets operated at 230V. Single Phase 50Hz. AC Supply. Fitted with UV Germicidal lamp for sterilization. Fitted with Acrylic Front Door sliding type, Fitted with Manometer for Measurement of HEPA Filters Choking system, Fitted with Cock for Gas Connection Warranty: Three years full comprehensive warranty from date of installation	1 No.
18.	Real time PCR	An automated system for both real-time PCR and post-PCR (end-point) analysis using in-built Peltier based block with full license for PCR process. The system should offer the following specifications: APPLICATIONS The system should be capable of applications such as Absolute quantitation; Simultaneous analysis of data for relative quantitation for 10 number of plates of 96 wells each; Multiplex-PCR up to 6 targets, allelic discrimination (SNP), miRNA profiling, Dissociation curve analysis, Copy number variation, Pathogen detection and plus/minus assay using internal positive control. The normalization of reaction due to non-PCR related fluctuations such as pipetting variations should be possible by using ROX™ or any calibrated dye. HARDWARE A Peltier based 96x 0.2ml well thermal cycle, Temperature range of 4 oC-100°C is essential, Maximum Block ramp rate of 6.5Deg C/Sec or more. Excitation range between 450nm-680nm and Emission range between 500-730nm. Reaction volume 10-100 µL and should use Universal thermal cycling conditions. Standard transparent 96-well plates or individual transparent PCR tubes or 8 strip tubes compatibility. Run time of less than 35 minutes for 40 cycles in Fast Mode. The System should be combined with 6 decoupled excitation and emission filter sets to enable collection of up to 21 unique combinations of wavelengths during a single run for multiplexing on the 96-well block instrument. Dynamic range up to 10 orders of Magnitude. Six independent Peltier Block to provide six independent temperature zones to run six different assays with varying annealing temperature at the same time. Each block having the ability to set up PCR with specific temperature differential of up to 5 degree centigrade between blocks and 25 Deg from one end to another. The instrument should include a heated lid assembly that heats the top half of the sample plates and provides an effective seal to minimize reaction mixture evaporation. OPTICS	1 No.

		<p>The excitation by White LED light source with a > 5 years lifespan and detection by sCMOS /CCD. System must collect data for all filters for all wells regardless of plate setup. System should be capable for detection of 10 dyes FAM™, SYBR® Green I, VIC®, NED, ABY, JUN, Mustang Purple, TAMRA, Cy5, and ROX™ dyes on a single plate.</p> <p>SOFTWARE The data collection and instrument control software should provide multicomponenting algorithm for de convolution of multiple dye signal with minimum cross talk. It should be possible to alter the plate setup after the completion of run. System should have option like Stand-alone, PC connected, or direct connection to Cloud via LAN or Wi-Fi. The instrument online software allows users to batch analyze up to 500 experiments simultaneously. The instrument should be UL, CE, C-TICK, WEEE, and MIQE compliant and Features to assist 21 CFR part 11 compliance.</p> <p>CHEMISTRY System should be an open platform enabling use of various chemistries without hardware change. It should be standardized for Taqman-MGB Probe based 5' Nuclease Assay and SYBR Green Chemistry, to be set-up on single plate with seamless switchover during the run. Pre-validated and functionally tested Taqman Gene Expression Assays as well as Taqman SNP Genotyping Assays should be readily available. 100 ml SYBR green and 1000 plate should be provided FOC, 50 installations with in India, Kolkata based service center.</p> <p>Accessories: Online UPS with 2 hours power back up, split AC 2.0 Ton Capacity Warranty: Five years full comprehensive warranty from date of installation</p>	
19.	Gel documentation system	<p>System specifications- Gel documentation system suitable for Chemi-luminescence , UV and Fluorescence, System Configuration-Camera – CCD,1.4 megapixels<=4 megapixels,12 bit, Dynamic range - >3 orders of magnitude, Lens – f/1.2, 8-48mm8.5-51 mm, motorized zoom, Camera cooling system: Peltier based (cooling Temp. ~ -400°C), Filter position – 3 or more (chemiluminescence, fluorescence- 2), Illumination modes – Trans-UV, white and epi-white lights, Field of view: Min. 20x20cm,Fire wire / USB connectivity with fast data transfer, With USB port, Set of extra UV/Visible lamps, Gel Analysis software, Capable of imaging and analysing 1-D/2-D electrophoresis gels, dot blots, slot blots and colony count, Molecular weight determination, Band/lane matching analysis with comparative dendrogram creation, background subtraction, Latest branded PC with Laser printer, Accessories to be quoted, 254nm UV lamp / 302 nm UV lamp / 365 UV lamp, Filter, SYBR Green / Green fluorescent protein / SYBR Gold/ fluorescence, Other Requirements, Validation of the instrument is to be done every six months during the period of warranty, Availability of local Service Support and response time for a Service Call during and after warranty to be mentioned, Additional features/accessories if any that can potentially increase the productivity of this instrument should be quoted as optional items.</p> <p>Accessories: Online UPS with 1 hour power back up, split AC 2.0 Ton Capacity, Warranty: Five years full comprehensive warranty from date of installation</p>	1 No.
20.	Temp. controlled ultra-centrifuge	<p>Operated on: 230 V 50-60 Hz, RPM range must be : 200 to 14,000 in increment of 10 rpm or better, Max rcf : 20,900 x g or better, Max capacity must be : 4 x 250 ml or better, Rotor, bucket, lid and adapters must be autoclavable at 121°C, Carbon/plastic rotors are not preferable, Must have option for horizontal centrifugation in 1.5ml tube, Temperature range -9°Cto +40°C, Timer: 1min to 99min and continuous. Centrifuge timer should start after the set RPM reached, Short spin key should run at desired rotational speed, Standby</p>	1 No.

		<p>refrigeration for maintaining temperature when not in use, Values can be changed during centrifugation, Must have option for rolling cabinet with casters and drawers</p> <p>Rotor and adapters of 5ml conical tube both in fixed angle and swing bucket options should be available, Must have full digit display of time, temperature and rpm and g-force</p> <p>Must be able to adjust radius setting for every adapter of maximum rcf accuracy. Facility to program to shut off the compressor automatically after 7 or 9 hrs of non-use, Access height must be ≤ 29 cm, Should have built in condensation drain to eliminate condensed water, Inbuilt technology to avoid auto off and on of compressor to maintain temperature homogeneity, Atleast 35 programmes should be stored and recalled immediately, Noise Level < 58dB, Should have 10 Acceleration and Braking Ramps for sensitive sample material. Should have IVD compliance, Preferably to have good number of installations in and around the region</p> <p>Rotors:</p> <p>Fixed angle (34°) anodized aluminum rotor for 6 x 85ml tube with max speed 15500xg. Should come with adapter for 15ml and 50ml conical tube. Rotor lid should be metallic, rotor should be light in weight ≤ 3.25kg, Fixed angle anodized aluminum rotor for 30x1.5ml/2ml tube to run at 20800xg rcf.</p> <p>Warranty: Five years full comprehensive warranty from date of installation</p>	
21.	Autoclave	<p>Triple walled construction, working chamber, steam jacket, outer chamber and the lid should be made of stainless steel, Should have water inlet and outlet valves, Should have a water level gauge, Should have gauges for measuring inner and outer steam pressure, Should have an inner temperature indicator, Should have automatic pressure control switch, safety valve and eject valve, Should have joint-less silicone gasket, automatic low water protection, supplied along with bins, Should have an ISI mark, working temperature 121°C at 15 to 20 psi pressure, Chamber volume (150L) with minimum 2 bin type, operated in 220 – 240 V AC 50 Hz input power supply, Water inlet and outlet pipe should be provided and connections should be done on a turnkey basis.</p> <p>Warranty: Three years full comprehensive warranty from date of installation</p>	1 No.
22.	Microwave digestion system	<p>Designed with well-engineered microwave technology, pressurized digestion cavity (PDC) temperatures up to 300°C and pressures 20 bar or more can be achieved. Suitable for all kinds of samples such as soil, food, environmental, polymer, cosmetic, pharmaceutical, geological, chemical, and petrochemical samples. Different sizes of vials (5, 10, 25, 40, 50 mL) with plug-on caps and racks of up to 24 positions for different size vials should be provided with the system. Integrated water cooling system, remotely controlled mechanism via VNC from computer, notebook, or mobile phone etc. from any location, automated notifications of completed runs and events via email, and gives an audio notification and a visual notification via Smart Light etc.</p> <p>Three Years full comprehensive warranty from date of installation</p>	1 No.
23.	Leaf Area meter	<p><i>Resolution:</i> 1 mm^2 ($1\text{ mm} \times 1\text{ mm}$ scanning area), <i>Accuracy:</i> Within $\pm 2\%$ for samples $>50\text{ cm}^2$, <i>Display Capacity:</i> Area: 9,999,999.99 cm^2, Length: 99,999,999.9 cm, Width: 12.8 cm. <i>Display:</i> 2 line x 16 character LCD. <i>Keyboard:</i> Sealed, 24 key tactile response with audio feedback. <i>Real Time Clock:</i> Year, month, day, hour, minute, second. Accuracy: ± 3 minutes per month (0 to 55°C). <i>Internal Memory:</i> More than 2.1MB of non-volatile FLASH. Measurement data is maintained even in absence of power. <i>Memory Capacity:</i> From 65,000 to 125,000 individual leaf area measurements. <i>Communications:</i> USB 1.1 Compliant, Full Speed,</p>	1 No.

		<p>Bus rate @ 12 Mbps; RS-232 DTE, N,8,1, Baud rate set @ 38400 bps, Hardware Flow Control. <i>Sample Dimensions:</i> Width: 127 mm maximum, 1 mm minimum. Thickness: 8 mm maximum. Length: 1 meter maximum.</p> <p><i>Scanning Speed:</i> Up to 1 m/s. Length encoding cord drawing speed need not be constant. Error message indicates if encoding cord is drawn too fast. <i>Power Requirement:</i> Rechargeable 6V lead-acid battery; or 115/230VAC, 50/60 Hz, 20W maximum. <i>Battery Capacity:</i> Typically 12-15 hours of continuous operation. <i>Recharging Time:</i> minimum, instrument off. Charging circuitry is built in. <i>Battery Voltage Sensor:</i> Low battery warning occurs approximately 1 hour before automatically shutting off the instrument. Over-voltage warning occurs if battery becomes over-charged. <i>Scanning Head:</i> LED Light Source: 6.4 mm from outer edge. Size: 30.5 cm overall length (12.0"). Weight: 680 g (1.5 lb.) <i>Operating Temperature:</i> 0 to 55° C, 0 to 95% RH (noncondensing). <i>Storage Temperature:</i> -20 to 55° C, 0 to 95% RH (noncondensing). Long term storage at high temperatures will shorten life of internal battery.</p> <p><i>Scanning Head:</i> LED Light Source: 6.4 mm from outer edge. Size: 30.5 cm overall length (12.0"). Weight: 680 g (1.5 lb.).</p> <p>Warranty: Three years full comprehensive warranty from date of installation</p>	
24.	Chlorophyll Meter	<p>Default Display Unit: μmol of chlorophyll per m^2 of leaf surface, Optional Display Units: CCI, SPAD, Measurement Area: At least 9 mm standard diameter with 5 mm diameter with reducer, Resolution: $\pm 10 \mu\text{mol m}^{-2}$ chlorophyll concentration using generic equation, Linearity: $\pm 1 \%$, Repeatability: $\pm 1 \%$ Sample Acquisition Time: Less than 3 s, Storage capacity: 8 MB for up to 160,000 data measurements; 94,000 data measurements with GPS data entries, User Interface: 50 mm by 15 mm graphic display screen, 8 push buttons for control and data manipulation, Data Output: Mini-B USB port provided for main data transfer, External GPS Option: RS-232 port (GPS location data is saved with each measurement), Operating Temperature: 0 to 50 °C, Temperature Drift: Temperature compensated source and detector circuitry over full range, Power Requirement: Standard 9 V DC alkaline battery, Warranty: Three years full comprehensive warranty from date of installation</p>	1 No.
25.	BOD Incubator	<p>Capacity- 12 Cft., At least Six Shelves/Trays, Microprocessor based temperature Control System, Safety thermostat for over temperature protection (Temperature Range- 5°C to 50°C, Temperature accuracy- $\pm 0.5^\circ\text{C}$, Temperature uniformity- $\pm 0.1^\circ\text{C}$), CFC free cooling system, Fully Adjustable Shelves, Solid insulated door with glass door and lock, Double walled construction with insulation, Combined Electronic Digital Temperature & humidity controller, Automatic Voltage Stabilizer of 3 KVA, Three year full replacement warranty</p>	1 No.
26.	Water bath	<p>Outer body made SS304 for GMP Model and MS Powder Coated for STD Model, Inner body made SS 304 for STD and GMP Models, Specially made extra long heating elements for durability, Better uniformity of temperature, Concentric rings 3" diai. (75 mm), Temperature range: + 5°C to 110°C, Provided with microprocessor based digital PID controller PT100 temperature sensor having resolution 0.1 °C, Accuracy 1.0 °C, Heater -2000W, Provided with indicating lamp & on/off switch Electrically operated 230 V AC single phase power. Additional two heating coils must be provided.</p> <p>Warranty: Three Years full comprehensive warranty from date of installation</p>	2 No.
27.	Single water distillation unit	<p>output-4 L hr^{-1}, auto cut devise at low water level, rechargeable water softner large capacity, iron prefilter easy maintenance</p> <p>Warranty: Three Years full replacement warranty from date of installation</p>	2 No.

28.	Double water distillation unit	output-4 L hr ⁻¹ , auto cut devise at low water level, rechargeable water softener large capacity, iron prefilter, easy maintenance Warranty: Three Years full replacement warranty from date of installation	2 No.
29.	Core Sampler/ Power Augar	Soil core sampler (for bulk density study of soil) with knife and Hammer, 3 stainless still rings Stainless steel cylindrical core (5 cm diameter, 15 cm height) suitable for collecting soil sample from 100 cm depth at 5 cm interval with other accessories. Fully automated Power augar, petrol or Diesel operated motor, enable to draw soil upto 2.0 m depth Fully automated Power augar, petrol or Diesel operated motor, enable to draw soil upto 2.0 m depth with all accessories and spare parts	1 No.
30.	Pressure plate apparatus	3 and 15 Bar Pressure Plate Extractor, Manifold, 1, 3, 5, 10, 15 Bar Pressure Plate Cells (at least each 4 in no.) Hinge with Plate, Connecting Hose for 1500 Extractor, Connecting Hose for 1600 Extractor, Soil Sample Retaining Rings, compatible Compressor including Connection Hose to Manifold Warranty: Three Years full comprehensive warranty from date of installation	1 No.
31.	Double Beam Spectrophotometer	Spectral Range: 190 -1100 nm, Bandwidth: Variable from 0.1 – 5 nm with 0.01 nm interval, Monochromator: Double out of plane Littrow Monochromators, Photometric range: 5Abs or better, Scan speed: 1,50,000:1 nm/min, and 250 data points per second, Source: Xenon flash lamp with typical life of 10 years and 250 flashes per second, Beam size: Highly collimated beam with size 1.5 mm to accurately use very small aperture microvolume cuvettes. 8 cell peltier temperature controlled cell holder for simultaneous measurement of 1 Reference and 7 samples, Peltier temperature controlled cell holder should have capability to measure 4 different temperature simultaneously (4 sample and 4 references), Multiple cell holder should measure all 8 positions simultaneously for quantitative and ramping measurements without requiring any mechanical movement. Temperature range: 0 - 110 degree C, Temperature ramping mechanism: Solid state Peltier controlled cell holder which doesn't require any external water bath, water or liquid circulator, pump, external temperature controller etc, Temperature ramp rate: variable upto 30 degree C per minute, Software: Must come inbuilt with kinetics, temperature melting applications, scanning, simple read etc applications. Accessory: 16 UV-Vis quartz cells for temperature ramping measurements have to be supplied. Suitable branded PC with laser printer, Split AC 2.0 ton capacity, Online UPS for 30 min power back up has to be supplied with the instrument	1 No.
32.	Spectroradiometer	Spectral Range : 350 -2500nm, Spectral Resolution : 3.5nm @700nm, 20nm @ 1500nm, 18nm @ 2100nm, Sampling Interval : Data output in 1nm increments; 2151 channels , reported Detector : Si Photodiode Detector and InGaAs Photodiode Detectors (TE-cooled), Noise Equivalence Radiance : ≤0.8x10 ⁻⁹ W/cm ² /nm/sr @400nm; ≤1.5x10 ⁻⁹ W/cm ² /nm/sr @1500nm; ≤1.5x10 ⁻⁹ W/cm ² /nm/sr @1500nm; ≤1.8x10 ⁻⁹ W/cm ² /nm/sr@2100nm, Field of View /Lenses(4°/8°) with required accessories for the analysis of single leaf and whole canopy, Minimum Scan Speed : 100 milliseconds Wavelength Reproducibility : 0.1nm or better, Wavelength Accuracy : ±0.5, Built-in laser targeting for precision and accuracy, Standalone operation with light weight (less than 3.5Kg), Memory : 1000 spectra or more, Inbuilt display with well readable in sunlight, Communications interface : Wireless (via Class-I Bluetooth) and USB, Inbuilt rechargeable battery for the operation in filed for more 3.5 hours, Software : Data Acquisition software should save files in ASCII format for use with analysis software (no pre-processing) and access	1 No.

		to USGS spectral library and 19 vegetation indices, System should supply with all required and above accessories (Including FOV lens(4°/8°), and Detachable Fiber, Portable Data Acquisition System(PDA), Calibration Standard for lens and fiber-optics, Tripod, Backpack for field use, Battery and charger) for ready to use Warranty: Three Years full comprehensive warranty from date of installation	
33.	Plant canopy analyzer for LAI, iPAR	System should be portable, light weight. Single measurement for data collection. Collect data under any lighting conditions. On-site evaluation of solar beam transmission coefficients or Gap fractions. Calculation of diffuse radiation transmission coefficients (the sky view factor), mean foliage inclination angles, and plant canopy extinction coefficients. User-selected number of zenith and azimuthal divisions allows investigation of any canopy sectors desired. Inbuilt GPS. High resolution Image to accurately measure Plant Canopy. Inbuilt Display with Memory of > 1000 data sets. Scanning time: less than second. Hemispherical Camera/Lens for wide viewing angle. PAR sensor should be attach with Arm/Measuring Handle to measure Sunflecks Warranty: Three Years full comprehensive warranty from date of installation	1 No.
34.	Controlled shaker	Temperature Range & Accuracy: 4°C to 50°C, ± 0.5°C., Maximum Shaking Capacity (Volume x No. of flasks) : 50ml x 42, 100ml x 28, 250ml x 12, 500ml x 11, 1000ml x 8, 2000 ml x 4, Shaking Speed range (RPM): 20 to 300, Shaking Amplitude: 20 mm, Display Resolution: 0.1°C, Timer: 0 to 999 Minutes, Load in Tray: ≥ 10 kg, Temperature control: Microprocessor, Display: Large size LCD Display, Stainless-steel chamber and platform easy to clean, Transparent plastic door, Microprocessor controller with large LCD screen for temperature and shaking speed with timing function, Self-check function easy to identify problems, Smooth start and stop system prevents liquid spillage, Auto controller of fan speed to prevent damage to the samples, Safety door switch, auto pause operation when it is opened, Electrical: 220-240 volts, 50Hz, Single Phase, CE Certificate, ISO Certified, Calibration Certificates and IQ, OQ documents, Split AC 2.0 ton capacity, Online UPS with 1 hour power back up has to be supplied with the instrument Warranty: Three Years full comprehensive warranty from date of installation	1 No.
35.	IRGA	Portable Photosynthesis System should have facility to measure Net Photosynthesis, Transpiration, Stomatal Conductance/resistance, PAR, RH, Air temp, Leaf Temperature, Chlorophyll fluorescence etc. Feature and specifications :- Portable, light weight and easy to carry in field, The Photosynthesis system should have on Non-Dispersive Infrared Gas Analyser . The Photosynthesis system should have automatic pressure and temperature compensation for accurate reading. CO ₂ Analyser range should be 0 -2000 PPM or better. H ₂ O Analyser range should be 0 - 75%. Accuracy of CO ₂ & H ₂ O should be + 2% or better. Flow rate: 0 to >500ml/minute. Leaf Temperature range: 0 to 45°C with accuracy ±0.5°C. PAR Range: 0–2000 μmol/m ² /sec. Display: LCD/LED/Graphical display and well readable in field. Memory: minimum 2 MB or more. Chlorophyll Fluorescence Module for chlorophyll fluorescence measurement of same Leaf Area. System should supply with all required accessories (including small leaf chamber) for ready to use. Warranty: Five Years full comprehensive warranty from date of installation	1 No.
36.	ELISA reader	Wavelength range:400–750 nm, Photometric range:0.0–3.5 OD, Linearity: ≤1.0% from 0.0–2.0 OD; ≤2.0% from 0.0–3.0 OD, Accuracy: ≤1.0% or 0.010 from 0.000–3.000 OD at 490 nm, Precision:1.0% or 0.005 OD from 0.0–2.0 OD; 1.5% from 2.0–3.0 OD,	1 No.

		Resolution: 0.001 OD, Filter wheel capacity: 8, Plate shaking (3 speeds): Low, mid, high, Duration, sec: 0-999, Read time: 6 sec at single wavelength, 10 sec at dual wavelengths. Data output: Onboard graphical thermal printer and USB2 interface with PC. Data stations. Data storage: Calendar/clock functions; 64 assay protocols Warranty: Five Years full comprehensive warranty from date of installation	
37.	Thermo cycler	96-well Block, 3x 32 wells. Feature: Run three experiments at once or at different times, Reaction Speed: fast enabled, controllable ramp rate. Program features: Auto restart after power outage, program edit during experiment, one touch incubation. Temperature accuracy: ±0.25°C (35-99.9°C). Temperature range: 0-100°C. Temperature uniformity: <0.5°C (20 sec after reaching 95°C). PCR volume range: 10-80 µl. Instrument memory: USB, onboard. Display interface: 8.4 inch colour TFT LCD. Power: 100-240 V, 50-60 Hz, max: 950 VA. Warranty: Five Years full comprehensive warranty from date of installation	
38.	Thermal imaging camera	Detector: Uncooled Microbolometer Focal Plane Array (FPA), Resolution/Pixel Size 384 x 288, Spectral Range 8 - 14µm, Thermal Sensitivity 0.06 @ 30°C, Image Performance LCD Display High Resolution 3.5" Color LCD, 640 x 480, Visible Camera 1.3 Megapixel CMOS Sensor Lens Parameter Field of View 25° x 19°, Focus Range 0.1 m to ∞, Focus Type Manual, Spatial Resolution 1.37 mrad Measurement Analysis Measurement Range Low/High Temperature Switchable: -4° to 356°F (-20° to 180°C) or 212° to 1112°F (100° to 600°C), Measurement Accuracy Greater of ±2% of reading or ±2°C. Instrument is not calibrated below -10°C. Image Control 11 Display Color Palettes: Iron bow; Negative Grayscale; Positive Grayscale; Amber; Hot Metal; Cool Metal; Rainbow Green-Red; Rainbow Blue-Red; Rainbow Black-White; High Contrast Blue-Yellow; and High Contrast Violet-White, Image Adjustment: Auto Ranging / Manual Level and Span / Adjustable Display Brightness Control, Auto Correction Auto Correction of Microbolometer with Adjustable Time Interval or Push Button Manual, Measurement Mode Spots, Areas, Lines, Isotherms, Delta T, Number of Measurement Spots 1 Hot, 1 Cold, plus 2 Adjustable, Number of Measurement Areas 3, Number of Measurement Lines 1 Vertical, 1 Horizontal, T Reflect Manual Adjustment, T Correct Manual Adjustment, Digital Zoom 2 X or 4 X, Thermal/Visible Image Toggle between Thermal and Visible, Alarm High and Low Temperature Audible and Visible Alarm; Isotherm Visible Alarm, Temperature Scale User Selectable: °C, °F, and K User Settings Date/Time, Temperature Unit and 11 Languages: English; Spanish; French; German; Italian; Portuguese; Korean; Japanese; Russian; Simplified Chinese; and Traditional Chinese Emissivity Range Adjustable from 0.01 to 1.00 with Built-in Emissivity Table Removable Storage 2GB SD / Time Stamped, Storage Mode Manual Single Image Save or Programmable Auto Save to SD Card, File Format (Thermal) JPEG plus Temperature in 14 bit data, File Format (Visible) JPEG, File Size 100K (Typical Value), Voice Annotation Maximum 45 seconds per image, Laser Pointer Class 2, < 1mW / 635nm, Red Report Analysis Software should be included, Video Output User Selectable PAL and NTSC, Freeze Frame/Save Image Freeze Frame and Save Image, Thermal and/or Visible to SD Card Environment	1 No.

		<p>Ambient Operating Temperature 5° to 122°F (-15° to 50°C), Storage Temperature -4° to 140°F (-20° to 60°C), Humidity □ 90% non-condensing, IP Rating IP 54</p> <p>Power</p> <p>Power 1 Rechargeable Lithium Ion Battery, Operating Time 2 Batteries provide, ≥4 plus hours operation, Power Save Mode, Charging System External AC Mains Battery Charger included; In Camera Charging with optional AC Battery Charger</p> <p>General Info</p> <p>Housing Impact Resistant Molded Plastic with Wrist Strap, Mounting Hand Held with Tripod mounting / 1/4"-20 Thread</p> <p>Software Compatibility Microsoft Windows 2000, Windows XP, Windows Vista, and Windows 7 and higher</p> <p>Included Accessories</p> <p>Carrying Case; Wrist Strap; Lens Cap; 2 Rechargeable Lithium Ion Batteries; Video Out Cable; AC Mains Battery Charger; Report & Analysis Software; User Manual, SD Card and Reader.</p> <p>Optional Accessories</p> <p>NIST Traceable Certificate of Conformance; Extended Warranty; Auxillary Charging Package includes: Car Charger, AC mains charger, and International Plugs</p> <p>Safety Certificates: Shock Test 25G, IEC68-2-29, Vibration Test 2G, IEC68-2-6, Immunity Tests Yes, Emission Limits Yes</p> <p>Warranty: 3 years or more</p>	
39.	Infiltrometer	A laboratory grade double ring infiltrometer, preferably made with stainless steel is required having volume of inner ring 3000 ml and volume of outer ring of 10000 ml with diameter of 30 cm for inner ring and 60 cm for outer ring. Height of each ring is 30 cm. A stainless steel powder coated driving plate with hammer guide rod, pointer gauge and stop watch.	1 No.
40.	Hot Plate	Body made of CRCA sheet thick (1 mm) duly anticorrosive powder coating. Top plate made of heavy type, 8 mm thick CAST IRON with skirt type stand. Heating consist of grooved refractory with best quality Nicrome heaters and placed just beneath the plate. Temperature of the hot plate precisely controlled by thermostat upto temperature of 350°C. Operated on 220/230 V, single phase, 50 hz, AC mains. Size of top plate: 18 inch x 24 inch (Load 3 KW) Warranty: Three years	1 No.
41.	Soil Moisture Sensor	<p>Measurement: Volumetric water content and soil temperature</p> <p>Portable soil moisture measuring kit. Includes the following accessories. Soil Moisture Probe, cable for connecting with the meter pack of 4 x spare stainless steel rods, Moisture Meter (with spare alkaline battery), Insertion, USB-RS232 adapter cable, Quick Start Guide and carrying case. Accessories: 50 cm Extension Tube for Soil Moisture probe, Compatible Auger and Dedicated Soil temperature probe/meter, Accuracy: ± 0.01 m³.m⁻³ (1%) with soil-specific calibration (± 0.5°C (0 to 40°C for temp sensor) ± 0.75°C (-20 to +60°C for temp sensor)), Soil moisture measurement range: Full accuracy over: 0 to 0.5 m³.m⁻³ (Full range : 0 to 1.0 m³.m⁻³), Salinity range: 50 to 500 mS.m⁻¹ (Salinity errors < 0.035 m³.m⁻³ from 0.05 to 0.4 m³.m⁻³. Can be calibrated up to 2000 mS.m⁻¹), Temperature range: Full accuracy over- 0 to 40°C, Output: 0 to 1.0 V differential Corresponding to 0 to ~0.6 m³.m⁻³, Resistance 5.8Ω to 28Ω for temp sensor, Power requirement: 5-14 V, ~18 mA for 1s (Minimum 5.5 V with 100 m cable), Environmental: IP68 (-40 to +70°C), Sample volume: 60 x 30 mm diameter. Soil calibration: Generalised mineral and organic soil calibration are supplied. Warranty: 5 years along with field installation and demonstration</p>	02 No.
42.	Induction heating apparatus	Power consumption: 2000 W, Temperature Control: Automatic, Automatic Keep Warm Function, Automatic voltage regulator, Top Dimension: At least 46 cm (Height) x 41 cm (Width), Anti Magnetic	1 No.

		Wall, Auto Whistle Counter, Touch key pad	
43.	Nephelometer	Body Material: Mild Steel, Resolution: 0.01 ntu, Range: 0 to 200 ntu, Detector: Photo diode, application: Soil, water and sediment, Warranty: 3 years or more	1 No.
44.	Laboratory Storage Unit (almirah)	H1 Metal Almirah made by 20/22 gauge metal sheet duly painted. Size: 78" (H) x 34" (W) x 21" (D) usgae provision for 2 persons. Product should be ISO 9001, ISO 14001 certified, with locker.	06 No.
45.	Table (Full secretariat)	Providing & making Secretariat Table of approved design of size 1800 x 750 mm all using 18 mm commercial termite proof ply to be finished with laminates. The table should consist of pedestal unit having two box drawer and one filing drawer of size 400 x 450 x 700 mm with proper locking, all complete finish as per approval. Product should be ISO 9001, ISO 14001 certified.	05 No.
46.	Table (Half secretariat)	Providing & making Secretariat Table of approved design of size 1200 x 600 mm all using 18 mm commercial termite proof ply to be finished with laminates. The table should consist of pedestal unit having two box drawer and one filing drawer of size 450 x 450 x 450 mm with proper locking, all complete finish as per approval. Product should be ISO 9001, ISO 14001 certified.	05 No.
47.	File Cabinet	Cabinet with five swinging doors in width of 1600 mm & five shelf making four compartments is made of 18 mm thick pre-laminated particle board (conforming is-12823, density 700 kg/m ³ is chemically treated for termite & borer resistant, tested resistant to abrasion , steam, crack ,stain & upto 15% moisture content) of approved colour laminate is processed & bonded by aminoformaldehyde based / urea melamine resins with increased melamine offering enhanced resistance. All exposed edges sealed with pvc edge banding bonded by hot melt glue tape bonding processed by automated edge banding machine. Back of cabinet supported by 9 mm thick pre-laminated particle board of same specification. Completed with necessary hardwares & fittings from approved brand. size- W-1600 x D-400x H- 2100	05 No.
48.	Chair	Medium back revolving chair (Back-750 m x 50 mm seat size-500mm x 450mm. Seat and back made off 12mm thick hot pressed plywood with good quality rexine finish. Special cushion top of back rest. Arm made of chrome finished tubular pipe with PU arm rest. 5 prong chrome plated leg.	40 No.
49.	Desktop Computer with accessories	Branded Desktop computer, Processor-Intel Core i3 (4 th Generation), RAM-4 GB, HDD-1TB, Monitor- 20 inch LED, DVD-RW, Windows 7 ultimate, Keyboard, Mouse, Microsoft office 2010, UPS-600VA (Reputed brand), WiFi, Warranty: Three year full replacement warranty, Antivirus: Quick Heal Total Security for three year	20 No.
50.	UHP gas refilling and empty cylinder	UHP gases-Helium: 99.999%; Oxygen: 99.999% & 99.99%; Zero air gas: 99.999% pure for CHNS & TOC analyzer and Acetylene and nitrous oxide for Atomic Absorption Spectrophotometer and empty Cylinder including transport charges, FOR Destination	As per requirement

The quotations completed in all respect with all supporting documents should preferably be dropped in the box which will be kept in the Office of **Registrar and Chairman, Central Purchase Committee, 2nd Floor, Administrative Building, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, PIN- 741252 or sent by post within 25.06.2019 up to 5.00 P.M.** For any further clarifications, contact can be made with Dr. Kaushik Batabyal (Mob: 8348609944) and Dr. Dibyendu Sarkar (Mob: 9432010595).

Chairman
Central Purchase Committee, BCKV