

Kohsar University Murree

BOQs for Tender: Medical and Laboratory Equipments

Sr. No	Sr. No (Each)	Items	Required Specifications of the Equipment (Botany)	Qty.
BOTANY				
1	1	Analytical balance top loaded	Analytical balance top loaded , (micro gram) 1 to 3000 gm Internal Calibration, Tare Function/Counting, Overload Alarm	2
2	2	Ammonia High Range Photometer	Ammonia High Range Photometer with 470 nm LED, Range: 0.00 to 9.99 mg/L, Resolution: 0.01 mg/L, Accuracy: ± 0.5 mg/L $\pm 5\%$ of reading, Light Source: LED 470 nm, Light Life: Life of the instrument, Light Detection: Silicon Photocell Battery Type / Life1 x 9V / approx. 40 hours of continuous use; auto-off after 10 minutes of non-use	2
3	3	Benchtop pH meter,	Benchtop pH meter , Range pH -2.00 to 16.00 pH mV ± 399.9 mV; ± 2000 mV, Temperature -20 to 120.0°C, Resolution pH 0.01 pH mV 0.1 mV; 1 mV, Temperature 0.1 °C, Accuracy pH ± 0.01 pH, mV ± 0.2 mV (± 399.9 mV); ± 1 mV (± 2000 mV), Temperature ± 0.4 °C (excluding probe error) pH Calibration automatic, 1 or 2 point with 5 memorized buffer values (pH 4.01, 6.86, 7.01, 9.18, 10.01)	2
4	4	Refrigerated centrifuge.	Refrigerated centrifuge. Centrifuge 1 Liter capacity 15000 Rpm max 22000G Swing out rotor & Fixed angle rotors	1
5	5	Blender	Blender 4 in 1: Juicer, Blender, Grinder and dry mill Voltage: 220-240v Frequency: 50-60Hz	1
6	6	BOD incubators (Refrigerated Incubators)	BOD incubators (Refrigerated Incubators), Temperature Uniformity Microprocessor control with easy-to-read display shows actual temperature within 0.1°C Push-button controls for temperature set point selection, Forced-air circulation delivers excellent temperature stability CFC-free, foamed polyurethane insulation prevents heat loss, RTD temperature probe and protected set point mode prevent accidental temperature change Door key lock protects samples from unauthorized access	1
7	7	Centrifuge machine	Centrifuge machine , Bright LCD - Display: Large capacity 24 x 1.5 – 2.2 ml High speed 14800 RPM / 16162 xg RCF Short 0.9 acceleration and deceleration, Low temperature 0.42 increase during run, Easy handling, big buttons, Short and continuous run, 99 min timer, Two acceleration and deceleration curves	1

8	8	Cell Culture CO2 Incubator	Cell Culture CO₂ Incubator , Interior Dimension: 490(W) x 523(D) x 665(H), Interior volume:170 litres / 6.0 cu.ft. Heating method: Direct Heat & Air Jacket (DHA type), Temperature range: 5°C above ambient temperature to +50°C, Temperature uniformity: ±0.25°C, Temperature controllability: ±0.1°C, CO ₂ control system: On-Off control, CO ₂ sensor: Thermal conductivity, CO ₂ range: 0% to 20%, CO ₂ controllability: ±0.15%, Humidity system: Natural vaporization with water in humidity pan	1
9	9	Clinical centrifuge	Clinical centrifuge , supplied complete with a 6x15mL fixed-angle rotor, this basic unit features variable speed to 4000 to 10000 rpm, The rotor accepts 15mL (16x130mm) and 10mL (16x100mm) tubes directly.	1
10	10	Chlorophyll meter	Chlorophyll meter with 4 batteries, Field Scout CM 1000 or Equivalent Chlorophyll Meter. Reflectance of 700 nm and 840 nm, light: Light Requirements, Natural sun light, Artificial light: 60 Hz AC tungsten or, halogen powered by DC current, Contact Spectrum for use with 50 Hz, AC (Europe) Measurement Area, Conical field-of-view between 28.4 and 183 cm Index of relative chlorophyll content; 0 to 999. Logger Capacity 3250 readings without GPS/DGPS	1
11	11	Digital autoclave vertical	Digital autoclave vertical Capacity 150L, Sterilization Temperature 105 oC to 134 oC, LCD Display, Sterilization Pressure 0.22 Mpa, Timer Range 0-60 min	1
12	12	Energy Saver, Refrigerator Capacity 175 L / 6.2 cu. Ft	Energy Saver, Refrigerator Capacity 175 L / 6.2 cu. Ft. No frost No (Direct Cool) Dimension 490 x 1231 x 525 mm. Specification, Capacity 175 L / 6.2 cu. ft., No Frost, No (Direct Cool), Dimension 490 x 1231 x 525 mm, Colors Crystal Grey / Stone Grey	1
13	13	Digital camera, Auto Focus	Digital camera, Auto Focus Angle 60° Diagonal, 50° horizontal Axis Type Auto Certifications/Compliance CE, FCC, RoHS, ISO9001-2008 Product Type Auto focus digital camera, For Use With (Equipment) Auto focus digital camera Color Black Compatibility (Operating System) Windows™, Mac™, Linux™, Display Type LED Field of View 18.5 in. max. 17 x 14 in, Length (English) 2.7 in. to infinity Includes Applied Vision™ 4 or Equivalent system Software for Windows™, Mac™ and Linux™ operating systems, EduCam mobile app for iPad, iPhone and Android	1
14	14	Dispenser	Dispenser , Voltage: 220-240V - 50/60Hz, Refrigerant: R134a/42g, Input Power: 540W, Heating Power: 420W, Cooling Power: 120W, Hot Water: 85°C - 4L/h, Cold Water: 10°C - 2L/h, Environmental Temp: 10 - 38°C, Relative Humidity: 70%, Protection of Anti-Electrical – Shock	1

15	15	Digital water bath	Digital water bath, microprocessor controlled. Digital indicator for Temperature, with over temperature cutoff sensor., Temperature Range: Ambient 5°C ~ 99°C Temp Accuracy: $\pm 0.1^{\circ}\text{C}$, Temp Uniformity: $\pm 0.5^{\circ}\text{C}$, Capacity: 23liters, Dimensions: 590 x 350 x 230mm, Material Internal: Stainless steel, External: Steel, Powder coating, Power Consumption; 1500Watts	1
16	16	Gel documentation system	Gel documentation system Camera digital camera with a 1/1.7" backlit CMOS Sensor, 12 Megapixel and 3" LCD Monitor. Lens Zoom range 28-112 mm, (Full frame), Aperture f/1.8-f/2.5 Size 50 x 26 x 34 cm, Weight 6.3 kg, Illuminator Fast Gene® or Equivalent Blue/Green Trans illuminator, Optical Filter Amber Filter Power Supply, Blue/Green Trans illuminator, Input:100-240V, 50-60Hz (24V, 1A), Pentax Battery Charger or Equivalent, Input: 110-240V, 50-60Hz	1
17	17	Deep Freezer with Stabilizer	Deep Freezer with Stabilizer , 12 Cu Feet, Single door Local Made with Stabilizer 2500 watt	1
18	18	Environmental temperature humidity cycling walk-in climatic chamber	Environmental temperature humidity cycling walk-in climatic chamber. Temperature range for single stage refrigeration: -13°F/-25°C to 185°F/85°C Temperature range for cascade refrigeration: -100°F/-73°C to 185°F/85°C. Humidity Range: 10% to 95 RH within the bounds of a 158°F/70°C max. dry bulb and a 40°F/4°C min. dewpoint.	1
19	19	ELISA Plate Reader	ELISA Plate Reader Light source: monochromatic LED min. life time: 100.000 hours, Wave lengths: 405, 450, 492 and 630 nm standard 2 optional wave lengths, Photometric range: 0.0000 -2.5000 abs, Resolution: 0.0001 abs, Linearity: $r \geq 0.995$, Repeatability: $cv < 1\%$, Mixing: 3 speed levels, programmable timing, Reading time: less than 6 seconds per plate, Test modes: single or double wave length, abs., cut-off, single point, point- to-point, linear, index, log. or exp. regression,	1
20	20	EC meter	EC meter , Supplied with probe and 40ml calibration solution Range: Electric Conductivity Method: 0.00 to 19.9mS/cm, TDS: 0 to 9950 ppm, Resolution Electric Conductivity Method: 0.01 mS/cm (0.00 to 1.99mS/cm 2.0 to 19.9 mS/cm (0.1 mS/cm), TDS: 5ppm (0 to 995ppm) 50ppm (1000 to 9950ppm) Accuracy Electric Conductivity Method: $\pm 0.04\text{mS/cm}$ (0.20 to 1.99mS/cm), $\pm 0.4\text{mS/cm}$ (2.0 to 19.9mS/cm), TDS: $\pm 20\text{ppm}$ (100 to 995ppm) $\pm 200\text{ppm}$ (1000 to 9950ppm), Temperature compensation 10.0 to 40.0	1

21	21	Fermentor	<p>Fermentor Main Controller 7" TFT Color LCD Panel, 7" Resistive touch screen * Main Controller - CPU: 32Bit ARM9 CPU, 168MHZ - Main Memory: 8MB SD-RAM - Secondary Memory: 64MB Flash Memory, 8GB SD card Memory for Data Logging - pH/DO/Temp/Foam/ORP measurement analog board only communicate with main controller. Possible to add the O2/CO2/OD/Pressure/MFM2 - Record Board</p> <p>pH/DO/Temp/Foam/RPM/AIR/OD/O2/CO2/Pressure / Balancer : Real time output signal 4-20mA/0-1V/0-5V/1-5V/ 0-10V - Software for Control System, Program BIOCANVAS version 1.0 or Euivalent System- Calibration : pH, DO, Temperature, AF, AGIT, MEM, ORP, O2, CO2, OD, Pressure, - Setup Menu : User Setup (Temp, pH, DO, AF setup), Calibration, FEED, Engineer Setup (Input / Output Setup, Motor Setup) - Data Acquisition - Selective Data gathering - Flash Memory : Max. 100 data - Real time Graphic Trend / Real time Data checking - Excel Data to PC - Peristaltic pump (Boxer 9000 pump 4ea) - Acid, Base, Antifoam and Substrate feeding - AC Servo Motor : Electric power : 400W, AC Motor - Agitation speed : 10~1500 rpm - Driving type : Direct TOP drive servo Motor, Single mechanical seal - Drive coupling : Direct coupling, Easily uncoupled for removal of vessel Vessel 10-liter, Vessel (I.D 190mm, V.H 355mm, 1:1.8), Top Plate (220D/mm, SUS 316L) Vessel Material: Borosilicate Glass Vessel assembly with vessel supporter Top Plate (220D/mm), SUS 316L Height Adjustable Sensor Ports - pH / DO / Foam / Inoculum / Feeding / Sampling / Thermo well Hot and Cold water in/out ports Baffle: Removal vertical four plates Water Bath for exclusive use Autoclavable Multi PC software, 1CH~6CH (standard) Remote control by fermenter control system software, Air Compressor, Input: 38W Air Flow: 43L/min Power: 220V,50/60H, Pressure 0.2 kg Chiller, Temp range: -25 ~+150 / 0.1 Built in microprocessor control, RS232C. Bath Volume: 8L Refrigerant: CFC-Free(R404A) Power: AC110V 50/60Hz or AC220V 50/60Hz. (1phase) Size: 483W x 563D x 850H/mm</p>	1
22	22	Flame photo meter	<p>Flame photo meter Acceptable Components: Silicon Photocell, Spectroscopical Method: Interference Filter, Display Method: Dual-channel LED digital display 4digits of each channels, Readings Range: K: 0.0-999.9 Na: 0.0-999.9, Stability: Within15s the Max. Relative Deviation Value \leq 3%, Repeatability: \leq 3%, Linearity Error:., (0.00-0.2)mmol/L, linearity error \leq 0.005mmol/L, Na: (0.0-1.0)mmol/L, linearity error \leq 0.03mmol/L, Detection Limit: K\leq 0.004mmol/L, Na\leq 0.008mmol/L, Response Time: <</p>	1

			8s, Solution Wastage: 4-6ml/min	
23	23	Hemocytometer	Hemocytometer Grid type bright line Neubauer, Include Two cover glass, One red pipette, One white pipette, One pipette filler, Clear case	1
24	24	Infra-Red Gas Analyzer with leaf chamber, (LI-6400)	Infra-Red Gas Analyzer with leaf chamber, (LI-6400 or Equivalent) Range: SO ₂ :0-200ppm NO:0-200ppm; CO:0-200PPM; CO ₂ , O ₂ :0-25%, Measurement range can be customized. Resolution SO ₂ , NO, CO:1ppm CO ₂ , O ₂ :0.01%, Precision:SO ₂ , NO, CO, CO ₂ : ≤1% FS O ₂ : ≤2% FS, Communication ports: RS-232/RS-485, Inlet pressure: 2kPa-50kPa, Power supply: 110V/220V±44V AC50Hz±1Hz	1
25	25	Laminar Flow Hood	Laminar Flow Hood: 3 Feet Vertical, AL-VC-1000 or Equivalent, External Size (mm) W1000×D700×H1800, Internal Size (mm) W900×D650×H600, Table Height(mm)750, Clean Class Level 100Class 0.3μm (ISO14644-1 International Standard), Rated Air Flow 900m ³ /h, Air Velocity 0.3-0.6m/s HEPA Efficiency 99.99% 0.3μm above (H13-H14), Vibration Half Peak damping separate countertops (optional),Noise ≤50dB, Material Cabinet: epoxy powder coated steel or stainless steel, Table-board: stainless steel, Illumination ≥300lux Noise ≤50dB, Power Supply 220V/50/60Hz	1
26	26	Fluorescence microscope, Technical (Inverted)	Fluorescence microscope, Technical (Inverted) System consists of: Base: Leica DM6 B or Equivalent Upright Microscope, CTR6 Control Box Head: Trinocular Head (2) HC PLAN S 10x/25 M Eyepieces Condenser: S1 Condenser 0.9, Brightfield Path: Base Fluorescence Light Path: Base w/ Culminating Adapter and Light Guide Fluorescence Filter Cubes: 8-position Motorized Turret ET-DAPI (Blue): EX 350/50, DM 400 LP, EM 460/50 (F00943 or Equivalent) ET-Green (Green): EX 495/25, DM 515 LP, EM 37/29 (F00941 or Equivalent), ET-Red (Red): EX 580/25, DM 600 LP, EM 625/30 (F00942 or Equivalent), Illumination: 12V 100W Halogen Lamp w/ CTR6 Power Supply HXP 120 C (EL5000 or Equivalent) Metal Halide Source w/ Culminating Adapter and Light Guide Stage, PRIOR XY Motorized Stage PRIOR ProScan 2 Stage Controller & Joystick, Objectives: 7-position Mechanical Turret 5x/0.15 HC PL FLUOTAR (O2793 or Equivalent), 10x/0.30 HC PL FLUOTAR (O2227 or Equivalent), 40x/0.70 PL FLUOTAR (O2728 or	1

			Equivalent), Photo/Port Splits: 100% Eye, 100% Camera, 50/50% Eye/Camera, Camera: Am Scope MU1403 or Equivalent, Digital Camera w/camera port, Computer and Software: Laptop i7 running Am Scope, LAS X and Micro Manager software, Motorized Components: Condenser, Filter Cube Turret, Halogen Light Intensity, Fluorescence Shutter, Halogen Shutter, Aperture, and Field Diaphragm, XY stage, Z-axis Communication and power cables. Configuration and Setup: Orientation: Upright Illumination: Brightfield w/ Fluorescence Objectives: 5x/0.15 HC PL FLUOTAR, 10x/0.30 HC PL FLUOTAR, 40x/0.70 PL FLUOTAR, Light Sources: 12V 100W Halogen Lamp, HXP 120 C (EL5000 or Equivalent) Metal Halide Source, Stage: Motorized XY	
27	27	Lci-SD photosynthesis measurement system Measurement range and Chamber temperature	Lci-SD photosynthesis measurement system Measurement range and Chamber temperature: Direct leaf temperature: Flow rate to leaf chamber: Gas connections, Plant leaf chamber: 0-2000ppm, 1ppm resolution, Infrared gas analysis, differential open system, auto zero, automatic atmospheric pressure and temperature compensation 0-75mbar, 0.1mbar resolution, Two laser trimmed, fast response, water vapour sensors 0-3000 μ mols m ⁻² sec ⁻¹ , Silicon photocell -5oC to 50oC, Precision thermistor +/- 0.2oC, accuracy -5oC to 50oC Self positioning microchip thermistor/Energy, balance/manually positioned thermistor 100 to 500ml min-13mm barbed, 5 minutes @ 20oC, 240 x 64 dot matrix super twist, graphic LCD, Removable SD cards typically store.	1
28	28	Leaf area meter	Leaf area meter LI-3100C or Equivalent single lens provides adjustable resolution of 0.1 or 1mm ² High accuracy and repeatability, and fast, continuous operation for large quantities of samples with individual or cumulative area recorded Large (25 cm wide, 2.5 cm thick with 1 mm ² resolution) or small (<1 cm ² area when using 0.1 mm ² resolution) leaves or other objects, including needles Quiet belt system with adjustable press roller to flatten curled leaves	1
29	29	Magnetic Stirrer with Hot Plate	Magnetic Stirrer with Hot Plate , Temperature range up to 370°C, Variable Speed Control up to 1200rpm, Heating Plate Ø: 155mm, stirring capacity: 15liter, Power: 630 Watt, with PTFE follower, operated on 220 volts,	1

30	30	Microliter plate reader alpha equipment	Microliter plate reader alpha equipment LUX or Equivalent, multimode microplate reader Internal dynamic filter wheel system, with space for up to 32 filters, For absorbance, choice of filter-based detection for best sensitivity or spectrometer for wavelength flexibility, Top and bottom reading of all standard technologies (absorbance, luminescence, fluorescence intensity, time-resolved fluorescence and fluorescence polarization), top reading only for Alpha; with high performance for plate formats from 1 to 1536-wells, Stacker option for batch processing of up to 20 microplates, Optional dispenser for applications such as fast kinetics, flash luminescence assays, or dual addition assays, Integrated temperature control (up to 65 °C) and optional gas control unit to keep cells viable during long term kinetic assays, Browser-based software enables the plate reader to be controlled from a variety of devices – PC, laptop or tablet, Can be controlled via network or WIFI to facilitate remote working and data access	1
31	31	Micro Centrifuge Machine	Micro Centrifuge Machine , 500 to 15000 rpm 100-1500xg , with brushless Motor Drive, Microprocessor controlled Digital Bright Display of Speed or RCF, Pre selection speed or G force, Timer range 10 Sec to 99 minute with short run or continuous run Last run memory 2 acceleration & deceleration curves soft or fast, Motorized Lid Lock, Auto Lid Open, emergency lid lock release, Minimal temperature increase during run, complete with Angle Rotor capacity 24 x 1.5 ml, complete unit operated on 220 Volts	1
32	32	Micropipettes single-channel	Micropipettes single-channel 0.5-10 ul (P10 or Equivalent) 2-200 ul (P200 or Equivalent)100- 1000 ul (P1000 or Equivalent)/ Eppendorf, Gilson Pipetman P Series or Equivalent Single Channel Pipettes, Product Family: P10, P100, P1000, or Equivalent	2
33	33	Portable pH meter	Portable pH meter ,Measuring range pH -2.000 ... 19.999 Measuring range Temperature -5.0 ... 105.0 oC Measuring range mV -1200.0 ...+1200 / -2000...+2000mV Accuracy pH +/- 0.005/ +/- 0.01/0.1	2
34	34	Pipettes/ Dispensers	Pipettes/ Dispensers (all ranges)	1
35	35	Pipette	Pipette 5-50 ml. Filler	10
36	36	Power Supply	Power Supply (basic) (for DNA and RNA gel electrophoresis) , Power Supply Consort EV200 Series T, EV222 or Equivalent: 200 Volt, 200 mAmp, 20 W for 230Vac mains supply	1
37	37	Pressure probe CAsCad	Pressure probe CAsCad	1
38	38	Rotary shaker	Rotary shaker 20-50 flasks, Talboys Standard Analog 1000 Orbital Shaker or Equivalent, 220 V.	1

39	39	Rotary Evaporator	Rotary Evaporator RV 10 digital V 230V IKA 8024100 Clarkson 8024100 or Equivalent, Rotary Evaporator RV 10 digital V 230V IKA 8024100. RV 10 digital V, RV 10 digital V–C, RV 10 digital FLEX or Equivalent, 1500 cm ² . Dimensions (W x D x H)530x410x430mm, Weight of the drive incl. heating bath: 20kg, with glass parts, Permissible ambient temperature: 5-40C, Permissible relative moisture: 80%, Protection class according to DIN EN 60529:IP20, Voltage / Frequency:220 – 240 V / 50/60 Hz	2
40	40	Root Growth Scanner	Root Growth Scanner attached with imaging machine , Desktop and colored printer Augur-steel, Glass scanning tubes. Temperature range: 125°C, Accuracy: ±5°C, Pressure: 1.2kg / cm ² , Timer: 99minutes or infinity Baskets: 2 wire mesh type baskets, Pt 100 sensor, Capacity: 60 Litters Internal material: Powder coated steel, Power: 2300 watts	1
41	41	Rotary Evaporator with chiller	Rotary Evaporator with chiller IKA ® RV 10 or Equivalent	1
42	42	Shaking Water Bath	Shaking Water Bath , Temperature range min. 5 °C above ambient up to +95 °C with additional boiling mode (+100 °C), Capacity 14 Lit., interior dimension 350x290x140mm, shaking speed 10-150 stroke/minute, capacity to holds 6 Flasks of 250mlComplete set	1
43	43	Speed digester	Speed digester , Speed Digester K-425 or Equivalent. Dimensions (WxHxD) 310 x 540 x 620 mm 310 x 540 x 620 mm, Weight 12 kg, Operating voltage 110 – 120 V ±10 % / 220 – 240 V ±10 %, Frequency 50/60 Hz, Power consumption 1280 W, Temperature range 70 – 580 °C, Degree of protection IP 20	1
44	44	Spatula Stainless Steel	Spatula Stainless Steel , (150mm Long)	3
45	45	Single-plate mini-gel electrophoresis unit	Single-plate mini-gel electrophoresis unit , Complete System with following accessories, Single-plate mini-gel unit with GRM and integral lower buffer chamber, lid, 2 x (10 x 10cm; W x H) plain glass plates 2 x 1mm spacers, 2 x spacer aligners, 2 x (10 x 10cm) notched glass plates and 1 x 1mm thick 12-sample comb Recommended Power Supply (Consort or Equivalent), EV243 or Equivalent: 400 Volt, 300 mAmps, 50 Watt for 230Vac mains supply	1
46	46	Test tube shaker	Test tube shaker , Item Weight 1.21 pounds Outside Diameter 4.5 mm	1
47	47	Tube Mixer	Tube Mixer (trio) As One Fisher or Equivalent, Variable speed 4 to 80rpm, [ROTATOR VAR SPD 4-80RPM 120V]	1
48	48	Ultracentrifuge	Ultracentrifuge Speed range up to 10000 rpm Maximum RCF up to 803,000 x g Refrigerated yes 3000RPM Fischer or Equivalent	1

49	49	Vortex mixer	Vortex mixer , Technical Data Motion Orbital. Speed Range (RPM) 0 - 3,000 200 - 3,000. Control Scale. Orbit (mm / inch, Ø) 4 / 0.16. Operating Mode Touch, Continuous, High- continuous Touch, Continuous Motor Rating Input / Output (W) 12W / 6W Motor BLDC motor. Max. Load (kg / lbs) - incl. attachment 0.5 / 1.1. General Data Material Body Polypropylene. Platform Silicone rubber Dimension (mm / inch, WxDxH)* 154x210x83 / 6.1x8.3x3.3 148x159x77 / 5.8x7.4x3 Net Weight (kg / lbs) 3.1 / 6.8 2.6 / 5.7 Electrical Requirements AC 100V ~ 240V, 50 / 60Hz Safety Device Self-resetting / Current limit protection Current limit protection Class (DIN EN 60529) IP	1
50	50	Vacutainer labware	Vacutainer labware , Needle length: 127mm (5 in., Needle gauge: 17 G, Self-life: 1825 days	1
51	51	Water purification system	Water purification system , Milli-Q or Equivalent Integral Water Purification System. Certifications/Compliance ISO 9001 v.2000, ISO 14001 Contaminant Rejection (Microbiological) <1cfu/mL (with Millipak or Biopak point- or Equivalentof- use filters), Contaminant Rejection (Organic) <5ppb Contaminant Rejection (Particulate) <1 (particulates >0.22µm with Millipak or Biopak point or Equivalent-of-use filters), Endotoxin Concentration Less than0.001EU/mL (pyrogen-free)	1
52	52	Sliding microtome	Sliding microtome mx, HM 450 or Equivalent Sliding Microtome.	1
53	53	Quartz cuvettes	Quartz cuvettes Volume 1.5 and 3.5 ml Path length 10 mm	2
54	54	Water deionization plant	Water deionization plant 200lph or Equivalent Small water treatment plant deionized water treatment machines sea water desalination plant Shimadzu or Equivalent	1
55	55	UV Lamp	UV Lamp (set) D2-100 Deuterium Lamp 365nm & 254 nm	2
56	56	SDS Gel Electrophoresis with supply	SDS Gel Electrophoresis with supply Output voltage: 0-500V, Output current: 0-100mA, Temperature control is divided into three stages: 20 ° C, 37 ° C and 65 ° C, along with a set of manual dyeing apparatus, A set of manual sample ordering utensils, A pair of stun sticks, A set of analysis software	1
57	57	Leaf Canopy Analyser	Leaf Canopy Analyser Wavelength band 400nm-700nm, Measuring Range: 0-2700µmol m ² /s, Resolution: 1µmol m ² /s, Response time: 10s, Auto-acquisition interval: 1-99 minutes, Auto-acquisition times: 1-99 times, Accuracy: <+0.5%, Store capacity: 2GB (SD card), Meter length: 75 cm, Probe length: 50 cm, Number of Sensors: 25 (standard equipped) , Power: 2*AA batteries or Equivalent, Working environment, 0°C-60°C	3

58	58	Multichannel Pipette with stand	Multichannel Pipette with stand (Different size)	1
CHEMISTRY				
59	1	Analytical Balance	Analytical Balance , Display: 0.1mg, Capacity: 220g Internal Calibration, Tare Function/Counting, Overload Alarm	2
60	2	MPI-A capillary electrophoresis	MPI-A capillary electrophoresis- electrochemiluminescence analyzer Range of potential: -10 V ~ 10 V, Electrolyzer voltage: ±12V, 3 electrode system, Range of current: 0 ~ 250 mA, Reference electrode input impedance: 1012 Ω, Sensitivity: 1×10 ⁻¹² , Input Bias Current < 50 pA, Resolution of current measurement <1pA, Increment of potential: 0.1 mV, Scanning speed: 0.00001~200 V/S, Dynamic range of measure: greater than 5 magnitudes, Measure precision: better than 0.05%, Amplifier gain: 1×, 10×, 100×, 1000×Filter frequency: 10 Hz, 20 Hz, 50 Hz, 100 Hz, Amplifier output drift: better than 0.05%, Signal noise: 0.5 mV (P-P value, 1×), Integral amplifier integral time: 0.01 ~ 10 second System automatic zero adjustment, Automatic gain control Sampling rate: 1 ~ 200 times/sec, The detector has a temperature-control system for controlling working temperature. It should improve the stability of the test and signal-to-noise ratio effectively. Input high-voltage: -100 ~ -1000 V, Precision: better than 0.05%, Range of wavelength: 230 ~ 920 nm (the maximum wavelength response: 630 nm), Anodic sensitivity > 2000 A/Lm, Range of temperature-control: 0 ~ 35°C, Precision control : 0.01°C	1
61	3	Autoclave	Autoclave , Chamber volume: 100L, Working temp: 0-134°C, Max working pressure: 0.23 Mpa, Steam-water inner circulation, Optional: The drying system, Temp control and Timing function	1
62	4	Digital Balance	Digital Balance Stainless steel weighing plate, Weighting capacity 220 g, resolution: 0.1 mg, housing W x D x H 210mm*340 mm*325 mm, plate 90 mm	2
63	5	Energy Saver Refrigerator	Energy Saver Refrigerator , Health Light, 225 ltr Big Capacity, Anti-fungal gasket	1
64	6	Hot Plate	Hot Plate UC150 or Equivalent, Heated area, mm 150*150, Heater power, Watt 700, Max plate Temp 0C 325, Contact thermometer socket Yes	4
65	7	Deep Freezer	Deep Freezer , Vertical Freezer VF 1035 WB Inverter Avante or Equivalent + Glass Door	2

66	8	Vacuum Pump	Vacuum Pump and Chiller, Supply: 230V AC, Single Phase, 50Hz, Vacuum Pump should have in-built over-temperature protection. Diaphragm vacuum pump should reach ultimate vacuum of 5 mbar Should be a two-stage vacuum pump with noise level not more than 50 db. · Vacuum pump should have free air displacement capacity of 35 litres/min, Chiller, Reservoir capacity: Approx. 8 litres, External dimension should be 265 x 700 x 595 mm PID Temp. Controller with resolution of 0.1 °C Cooling capacity: 400 watts @ 20°C Pumping @ 15 litres/min at zero head. Operating range: -10 °C to ambient. Power supply: 230 V, 50 Hz, single phase	3
67	9	UV-Lamps wired	UV-Lamps wired	3
68	10	Graphite Furnace	Graphite Furnace , ELF11/14B, GFA-7000 or Equivalent 230V with Instruction Manual	1
69	11	Glassy Carbon electrodes	Glassy Carbon electrodes	3
70	12	Lab scale jaw crusher & roll crusher	Lab scale jaw crusher & roll crusher	1
71	13	Sieves of 008SAW.425	Sieves of 008SAW.425 , Mesh No: 40, 008SAW.250 Mesh No: 60, 008SAW.180, Mesh No: 80	4
72	14	Hot plates 1000 W	Hot plates 1000 W , Shape Round/ Rectangular, Voltage 230 V, Power required 1000 W, Connection 4 screw clamps	1
73	15	Elemental Analyzer	Elemental Analyzer vario MICRO cube for simultaneous CHNS Analysis with options for O and Cl analysis	1
74	16	IR Spectrometer, Fourier Transform Spectrometer FTIR	IR Spectrometer, Fourier Transform Spectrometer FTIR , IRTracer-100 or Equivalent, 220 - 240 V, Standard Wavenumber Measurement Range 7,800 to 350 cm ⁻¹ , Optional Extended Wavenumber Range 25,000 to 10 cm ⁻¹ , Display Wavenumber Range 15,000 to 0 cm ⁻¹ (standard), 25,000 to 0 cm ⁻¹ (optional), Beam Splitter Standard: Ge/KBr, Detector DLaTGS	1
75	17	Liquid Nitrogen assembly	Liquid Nitrogen assembly Specifications: Voltage: 220V, Purity: 99.999%, Core Components: PLC, Pressure vessel, Engine, Pump, Technology: PSA System, Can operate from a standard factory compressed air supply, Delivers 5% down to 10 ppm oxygen content, without the need for any additional purification, Available in 7 models offering varying flow rates and purities., Automatic economy mode, Digital and analogue outputs for remote monitoring, Alarm capabilities	1

ZOOLOGY

76	1	Rotary Microtomes	Rotary Microtomes Semi-automatic operation, motorized injection, manual sectioning, Section Thickness Range:1 - 60 μm, Specimen Retraction: 0-250μm adjustable, Specimen Feed: 28mm, Vertical Stroke: 70mm, Maximum Sample Size: standard specimen clamp, 55×50×30mm, Specimen Orientation: X axis/Y axis8°, Z axis 360	2
77	2	Cryostat	Cryostat Chamber Temperature: -50°C ~ 10°C, Section Thickness Range: 0.5μm~100μm Adjustable, Number of Freezing Station: 36 pcs, Vertical /Horizontal Stroke: 65mm/22mm, Electric Feed Speed: 0.9mm/s, 0.45mm/s	1
78	3	Colorimeter Photoelectric .400-700 nm	Colorimeter Photoelectric Klett or Equivalent.400-700 nm Tube size:14.25 x 125mm (calibrated or in-calibrated), Micro test tubes may also be employed for small volume samples (as low as 2.5 ml), Glass filters: blue(400-450nm) and green (520-580nm), Lamp and electric cord, Reproducible results with exactness to 0.33% on the full scale, Voltage: 115V, Wattage: 100-Watt, Weight: 12.5 lbs. (5.7 kg), Dimensions (W x H x L): 6 x 7.5 x 17.5 in.	1
79	4	Cabinet for 1000 slides	Cabinet for 1000 slides	4
80	5	Band Saw	Band Saw Size:110mm, Rotation:2600rpm	1
81	6	Automatic Tissue Processor	Automatic Tissue Processor , Complete set Number of Cups: 12, Capacity of Single Cup: 1000ml, 1800ml, Processing Steps: 12 steps, Frequency of Agitation: ≥10 times/H, 30 sec each time, TSP-6B or Equivalent, Equipped with a vacuum pump	8
82	7	Staining Racks for Staining in Bulk Holding 100 Slides	Staining Racks for Staining in Bulk Holding 100 Slides	10
83	8	Troughs for Staining in Bulk	Troughs for Staining in Bulk Size:105mmx85mmx70mm	10
84	9	Coplin Jars	Coplin Jars Jovert J0814X or Equivalent Weight 1 lbs, Dimensions: 2.75 x 2.75 x 5 in	50
85	10	Blood Pressure Instrument	Blood Pressure Instrument Display Size: VA 93x79 mm, External Dimensions: 148.3x100.5x52mm, Display: Digital LCD, Battery: 6VDC 4xAA alkaline batterie	2
86	11	Automatic Timer	Automatic Timer Switch Socket 220 Volts 2300 Watt 10 to 12 A 2300-Watt Maximum Load 16 times auto on off programs per day, Maximum Special for sign boards boring motors charger outdoor lights fridge water cooler water pump- Digital Programmable timer switch socket automatic on off switch	3
87	12	Balance for Weighing Organs	Balance for Weighing Organs Capacity: 0.5 to 150kg Electronic Weighing Machine Weigh Balance	9

88	13	Slide Boxes for 100 Slides for Students	Slide Boxes for 100 Slides for Students	30
89	14	Double Demonstration Eye Piece	Double Demonstration Eye Piece Beam Splitting Prism, Rotatable through 360 Degree.	1
90	15	Micro-projection Apparatus	Micro-projection Apparatus (10°–30°C (50°–86°F), 10–80% RH (without condensation), 0–1,829 m (0–6000') above sea level)	2
91	16	Sternal Puncture Needle Adult Size	Sternal Puncture Needle Adult Size 18G	2
92	17	Sternal Puncture Needle Child Size	Sternal Puncture Needle Child Size 14G	15
93	18	Liver Biopsy needle	Liver Biopsy needle Material Stainless steel Feature disposable Certification CE, FDA, ISO13485 Ethylene Oxide Sterilization	2
94	19	Stopwatch Reading	Stopwatch Reading At 1/5 Second	5
95	20	pH Meter	pH Meter With two extra electrodes, With calibration buffer (4.0, 7.1, 10.1 and 14.0), Measurement -2.000 to 20.00 pH, Accuracy +/- 0.002 pH	2
96	21	Microscope, Binocular Research	Microscope, Binocular Research Leica MZ12.5 or Equivalent Trinocular Zoom (Eyepiece C-W10X20X30X, one pair each Zoom Range 0.75X-11.25X Zoom Ratio 15:1 LCD Monitor: 8.4" Inches TFT Colour LCDxGA (1024x768,60Hz) OR Updated Model SMZ-1500 or Equivalent	1
97	22	Museum Jars	Museum Jars 500ml,1000ml	50
98	23	Preserved Animals	Preserved Animals Along with Formalin for Preserving	100
99	24	Plastic Skeletons for Teaching	Plastic Skeletons for Teaching	10
100	25	Surgical Instruments (Insect dissection Kit)	Surgical Instruments (Insect dissection Kit) Color White, Dimensions W24.5xD24.5xH24.5cm, Weight: 180 Grams Main material: Netting / Polyester, Mesh size: 96x26/680 um Aperture	5
101	26	Chiller	Chiller Reservoir capacity: Approx. 8 liters, External dimension should be 265 x 700 x 595 mm, PID Temp. Controller with resolution of 0.1 °C Cooling capacity: 400 watts @ 20°C, Pumping @ 15 liters/min at zero head. Operating range: -10 °C to ambient. Power supply: 230 V, 50 Hz, single phase	1
102	27	Fume Hood Single	Fume Hood Single Normal Size 4 feet, Internal work Area (W*D*H) 1200*680*1450 mm, Fluorescent Light Intensity 800 Lux, Construction Main body Phenolic resin laminates, Support frame: Mild steel/CRCA extrusions with an oven baked epoxy polyester powder coated finish, Air foil stainless steel grade 304, Fluorescent light 1 No, UV light 1 No.	2

103	28	Autopsy Tables	Autopsy Tables L*W*H 2500*800*850 mm, Stainless steel, Safe working load 150 kg, Sink 1pc, Socket safety 1 pc Water tap 2 pcs, Water Spray gun 1 pc	2
104	29	Microwave Digester	Microwave Digester Microwave source: 2450MHz, dual magnetron design, Maximum output power: 2200W, non-pulse continuous automatic variable frequency, Whole physical size (LxWxH): 550*670*700 mm, Working environment: 0-40 °C, 15-80%RH,	1
PHYSICS				
105	1	Determining Planck's constant - Measuring in a compact assembly (Set)	Determining Planck's constant - Measuring in a compact assembly (Set) Wavelengths: 472 nm, 505 nm, 525 nm, 588 nm, 611 nm, Dimensions: 280x150x130 mm ³ , Weight: 1.3 kg approx.	1
106	2	Recording the characteristic of a Geiger-Müller (end-window) counter tube (Set).	Recording the characteristic of a Geiger-Müller (end-window) counter tube (Set). Dose rate range: 2x10 ⁻⁴ to 3, 2 x10 ⁻⁵ to 3 x10 ⁻¹ , Plateau Threshold Voltage: 400V, Plateau Length: 100V, Recommended Supply Voltage: 450V, Chrome Iron Cathode: 525V	1
107	3	Determining the half-life of Cs-137 - Recording and evaluating the decay curve with Computer Interface (Set)	Determining the half-life of Cs-137 - Recording and evaluating the decay curve with Computer Interface (Set) Cs/Ba 137 m isotope generator 370 kBq, Sensor-CASSY 2, Geiger-Müller counter tube S, Stand base, V-shaped, small, Stand rod, 47 cm, 12 mm diameter, Leybold multi clamp, Universal clamp 0...80 mm, Test tubes, Fiolax, 16 x 160 mm, set of 10, Beaker, DURAN or Equivalent, 250 ml, squat	1
108	4	Determination of charge to mass ratio (e/m) of electron by fine beam tube method	Determination of charge to mass ratio (e/m) of electron by fine beam tube method (Milikan Experiment Apparatus) Maximum Plate Voltage: 500 VDC, Light Source: Cool LED, Reticle Line Separation: 0.5 mm major divisions; 0.1 mm minor divisions, Plate Spacing: 7.62 mm, Plate Diameter: 60 mm	4
109	5	Study of Hall effect in a Semiconductor Wafer with built in Tesla meter	Study of Hall effect in a Semiconductor Wafer with built in Tesla meter Doped silicon wafer, pre-wired circuit board carbide scribe, 2 soldering irons, indium solder, lead-tin solder, rubber cement, fine wire electromagnet and power supply, current source (dc power supply), two multimeters (for V and I) Easy Plot software	4

110	6	DSC (Differential Scanning Calorimetry)	DSC (Differential Scanning Calorimetry) Temperature range: room temperature ~ 550 °C air-cooled, Heating rate: 1 ~ 80°C/min, Temperature resolution: 0.1 °C, DSC Noise: 0.01μW, DSC Resolution: 0.01μW, DSC Accuracy: 0.1μW, DSC, Sensitivity: 0.1μW, Control Mode: Rising temperature, constant temperature (fully automatic programmed control)	1
111	7	Demonstration of Atwood machine	Demonstration of Atwood machine	1
112	8	Hook's Law Experiment	Hook's Law Experiment (Study of motion of spring to find spring constant, value of g, modulus of rigidity)	1
113	9	Compound pendulum	Compound pendulum Pendulum Bar: 950(L) x 25(W) x 5(H) mm, Seven (7) positions: 50mm centers	1
114	10	Resonance in a stretched string	Resonance in a stretched string Local Made Spring and stands	1
115	11	Conservation of Energy Using Projectile launcher	Conservation of Energy Using Projectile launcher	1
116	12	BASIC ELECTRICITY EXPERIMENTS	BASIC ELECTRICITY EXPERIMENTS (Ohm's law, Parallel series circuits, Kirchoff's law, Voltage law, Voltmeter, Ammeters. Diodes, Capacitors charging, discharging)	1
117	13	Electrical measurement instrumentation	Electrical measurement instrumentation (Voltmeters, ammeters, power supplies, variable transformers, 25MHz cathode ray oscilloscope, electrometer) Each qty 01	1
118	14	Current Balance	CURRENT BALANCE (Magnetic field due to Current and Permanent magnets. Produced Force measurements.	1
119	15	Experiment related to calorimetry and heat transfer	Experiment related to calorimetry and heat transfer Measurement of latent heat & specific heat capacity, Heat capacity of solid matter (Calorimeter and heat transfer applications) (Computerized- Wireless Temperature and current measurements). (Computer, tablet or mobile can be used, not included)	1
120	16	Waves in water, beats, superposition of harmonic motion	Waves in water, beats, superposition of harmonic motion	1
121	17	Investigation of gas laws and laws of thermodynamic	Investigation of gas laws and laws of thermodynamics	1

122	18	Spectrometry Experiment	SPECTROMETRY EXPERIMENTS (Spectrum of Gasses, using spectrometer. (Computerized, Wireless spectrometer is included) (Alkali spectra and fine structure included) (Computer, tablet or mobile can be used, not included) (Observation of light sources can be included)	1
123	19	Hydraulic pellet Press	Hydraulic pellet Press for sample making 24Ton, 10mm dye	1
124	20	Spin coater	Spin coater Bowl Size – Nonprogrammable: 8 in / 20.3 cm, Bowl Size – Programmable: 8 in. and 12 in. / 20.3 and 30.5, Rotational Speed: 0 to 9,999 RPM in 1 RPM increments, Acceleration/Deceleration: 0.1 to 30 seconds in 0.1 second increments, Dwell Time: 0 to 999 seconds in 1 second increments, Dispense Time: 10 to 30 seconds in 0.1 second increments (programmable model only), Power: 110/240 VAC, 50/60Hz, 1Ø, Dimensions (W x D x H): 13.25 x 18 x 10.8 in / 33.7 x 45.7 x 27.4 cm	1
A. Equipment List for Waste Management				
125	1	Breeding Cage	Breeding Cage For rearing of BSF, 2m x 0.9m x 1m cages constructed with wooden frames and fitted with a mesh all around, except for the bottom which will be fitted with a wooden board covered in a plastic	5
126	2	Dark cages	Dark cages Used for pupae to emerge as adult flies, Dimension: 2m x 0.9m x 1m cages constructed with wooden frames and fitted with a black mesh all around, except for the bottom which will be fitted with a wooden board covered in a plastic	5
127	3	Tweezers	Tweezers (Medicated)	30
128	4	Click counter	Click counter	25
129	5	Water bowl	Water bowl	20
130	6	Gloves	Gloves	100
131	7	Scrubbing brush	Scrubbing brush	20
132	8	Feeding Buckets	Feeding Buckets Buckets capacity 70 liters (0.72m x 0.4m x 0.39m) with an outlet for leachate collection	10
133	9	Buckets for leachate Collection	Buckets for leachate Collection (Buckets capacity 10 liters)	10
134	10	Buckets for Egg laying	Buckets for Egg laying	15
135	11	Dropper 2ml	Dropper 2ml	20
136	12	Hatching container / trays	Hatching container / trays Rectangular and transparent plastic container (60LxW 40xH 12cm)	10
137	13	Larvae rearing trays	Larvae rearing trays (Rectangular and transparent plastic container (L70 cm x W45 cm x H15 cm)	40

138	14	Pupation container / trays	Pupation container / trays (Rectangular plastic container (L60 cm × W40 cm × H12 cm) 60x40x12cm)	40
139	15	Digital Camera	Digital Camera High resolution with 105 mm lens	3
140	16	Table lamp	Table lamp	6
141	17	Humidifier	Humidifier (Humidification rate: 1.43 Gallons/24hrs or 225.52 ml/h; Effective area: 269sq ft/25 m ² ; Water tank capacity: 2 to 4 L)	5
142	18	Buckets	Buckets (Capacity. 120L. with Lid. Made of HD-polyethylene, Dim: L950xW480xH555mm)	100
143	19	Waste holding containers/Bin	Waste holding containers/Bin (Mobile Waste/ Wheel Bin, capacity. 120L. with lid. Made of HD-polyethylene, Dim: L950xW480xH555mm)	100
144	20	Aluminum/polypropylene cups with mesh in the lid	Aluminum/polypropylene cups with mesh in the lid; diameter at the top 8.5 cm, bottom 7 cm; height 10 cm	100
145	21	Drying oven	Drying oven Material, Stainless steel; Inner Size (W*H*D), 100×166×75; Temperature range, A-d(20°C~500°C); Heating up Time, RT~100°C About 10min; Rate of work: About 4.5 KW; Power, AC220V 50Hz;	1
146	22	Electronic Precision balance	Electronic Precision balance (Capacity: 2 kg, 0.01 g)	5
147	23	Digital Weight Scale	Digital Weight Scale (Capacity: 0.5 to 150kg Electronic Weighing Machine Weigh Balance)	3
148	24	Feed Pellets making Machine	Feed Pellets making Machine Capacity of pellets 2 tons per hours, Pellets size 3mm to 10 mm, Power 11KW, 380 V, Dimension (LxWxH)= 120x45x150cm	2
149	25	Crusher machine for Waste food and Garbage	Crusher machine for Waste food and Garbage (Capacity 15 to 60 tons per hour, weight, 6.5 tons, waste crushed size 500 mm)	2
150	26	Mouth operated Aspirator	Mouth operated Aspirator Used for adult flying insect collection	10
151	27	Insect Growth Chamber	Insect Growth Chamber Insect chambers provided the ideal environment to stimulate a variety of entomological studies for insect rearing with its wide temperature range of 5°C to 70°C and humidity range from 20% to 98% RH.	1
152	28	Digital thermo-hygrometer	Digital thermo-hygrometer	2
Equipment List for Insectory				
153	29	Mosquito Rearing cage	Mosquito Rearing cage Size: W30 × D30 × H30 cm; Material: Polypropylene and HDPE with net	5

154	30	Entomological wood box (for insect preservation)	Entomological wood box (for insect preservation) To mount and display insects. Dimensions Width, 30cm, Length: 45 cm, Height, 6 cm; Outer Frame Material, Teakwood; The top portion of the box is fitted with 6mm glass for viewing; 2 polished brass clasps for secure closure, Bottom lined with thick pad for pinning insects. Glazed inside with white art paper Double walled, perforated fumigation chamber	8
155	31	Aspirator (Mechanical)	Aspirator (Mechanical) Imported, size: 40×43×6 cm	10
156	32	Entomological Pins	Entomological Pins (Different size No.: 000, 00, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10) (Each pack containing all size)	5
157	33	Insect Dissecting Kit	Insect Dissecting Kit Imported, Color White, Dimensions W24.5×D24.5×H24.5cm, Weight: 180 Grams, Main material: Netting / Polyester, Mesh size: 96×26/680 um Aperture	4
158	34	Stereo Microscopes	Stereo Microscopes Leica SAPO Greenough S9 Series or Equivalent (Fusion Optics technology with 12 mm depth of field to find details fast, High magnification up to 6.1x-55x and 9:1 zoom for quick changes from overview to details, 122 mm working distance for easy sample manipulations under the microscope, Integrated, network-camera for easy image sharing)	1
159	35	Humidity Monitor	Humidity Monitor Temperature Measuring Range - 10°C~50°C(-20°C~50°C K-type), Humidity Measuring Range 5%RH~98%RH, Accuracy of Temperature ±1°C or ±1.8°F, Accuracy of Humidity ±3%(30~95%); ±5%(10%~30%)	2
160	36	Mosquito Magnet Trap	Mosquito Magnet Trap Imported, An insect light trap (ILT) is a great solution for commercial fly control	3
161	37	Pipette 10 ml	Pipette 10 ml (Glass Scale Line Dropper Pipette)	10
162	38	Watch Glass	Watch Glass (Convex) 04mm bottom: 71 mm height: 180 mm	20
163	39	Steel Emanuel Dipper	Steel Emanuel Dipper (long handle) new convex spherical glass watch, Glasses Crystal Diameter 31.5 mm, thick 1.0 mm	10
164	40	Steel Emanuel Dipper	Steel Emanuel Dipper (short handle) 500 ml (16.9-oz) stainless steel ladle with pour spouts on two sides, A ¾-dia	10
165	41	Strainers (steel)	Strainers (steel) Handle 300mm long, Dipper Cup 24 mm dia. × 25mm deep	10
166	42	Boro Silicate Flasks	Boro Silicate Flasks (imported) Imported, The normal pipe size the strainer	10
167	43	Boro Silicate Beaker	Boro Silicate Beaker (imported) Imported, containing Sodium Oxide (Na ₂ O) 500 ml, 100 ml, 50 ml	10
168	44	Boro Silicate Petri Dishes	Boro Silicate Petri Dishes (imported) Imported, Borosilicate Glass Quartz	10

169	45	Magnifying Glass	Magnifying Glass Optical Large Clip Folding Stand Desktop Magnifying Glass Lamp Magnifier For Inspection	4
170	46	Specimen Sorting Tray	Specimen Sorting Tray for microscope use Imported, ABS Plastic allowing good contrasting background	10
171	47	Insect Sweep Net	Insect Sweep Net 600mm x 25mm with steel handle; a rigid, galvanized steel 380mm net loop; and a net bag now updated with a Dacron Tape band with polyester netting (white, 96 x 26 mesh sq inch)	5
172	48	Knapsack hand sprayer	Knapsack hand sprayer Stainless steel pressure sprayer with pressure gauge, Tank cap. 12 lit	4
173	49	Thermal Fogger	Thermal Fogger (Out put 20000cv ft per min. Dimensions (L x W x H: 1288x310x360 mm) Chemical tank cap.6 lit, Fuel tank capacity: 1.5 lit, Weight 8KG, Performance of combustion chamber: 13.8-18.2 KW / 18.8-24.8 HP), Battery electricity 4 x1.5 V	1
Honey Bee Rearing Equipments				
174	50	Refractometer	Refractometer Dimensions (L x W x H: 35*60*70cm, Measurement Accuracy: ±0.1%(Brix), Sugar range: 0-100%(Brix), Temperature control range: RT 5°C-65°C, Min. Div.: ±0.0002, stability of temperature control: ±0.03°C, Sugar accuracy: ±0.1%(Brix), Fine degrees: ±0.0002	1
175	51	Beehive Plastic Pollen Trap	Beehive Plastic Pollen Trap Weight: 95/100g, core Components: Plastic, application: trap pollen from honey bee	30
176	52	Honey Processing Unit	Honey Processing Unit Components: Motor, Pump, Type: Concentrator; Production Capacity: 100kg/h, Voltage: 380V, Dimension(L*W*H): 1800*800*1400mm, Power: 9.5kw	1
177	53	Honey extractor	Honey extractor 8-12 frames automatic electric honey extractor, Stainless Steel inner basket body, Inner Basket body Size 42cmx26cm, Barrel diameter 68cm, Barrel height 68cm, Power 220V-550W	1
178	54	Aluminum Foil	Aluminum Foil	20
179	55	Bee Veil	Bee Veil	8
180	56	Bee Suit / Over all	Bee Suit / Over all Bee suit and Jacket allow full head and face protection	8
181	57	Gloves	Gloves	10
182	58	Matel Hive Tool	Matel Hive Tool Helps in detaching Combs from Hive	3
183	59	Honey Bee Frame Grip	Honey Bee Frame Grip	1
184	60	Bee Smoker	Bee Smoker (Bee Smoker - American Design for Beekeeper Heavy-Duty Stainless-Steel Beekeeping (4 X 7 Small) BEE smoker is used to calm down the bees and reduce stinging behavior of the bees, making the work in the hive easier).	3

185	61	Propolis Extraction Machine	Propolis Extraction Machine Core Components: Propolis extraction machine, Type: Extractor, Voltage: 220v/110v, Material: Stainless steel,	1
186	62	Uncapping comb Knife	Uncapping comb Knife	4
187	63	Beekeeping Honey uncapping tray	Beekeeping Honey uncapping tray (Material: Stainless steel; Size: LxWxH: 100*90.5*49cm)	2
188	64	Beekeeping Uncapping Fork	Beekeeping Uncapping Fork (Material: Stainless steel)	8
189	65	Beekeeping Hive Tool	Beekeeping Hive Tool Material: Stainless Steel Hive Claw Scraper	4
190	66	Beehive	Beehive	10
191	67	ICP-MS	ICP-MS Wavelength Range: 2 ~ 255 amu, measuring range: ≥ 108 , The detection limit: $Be \leq 10$; $In \leq 2$; $U \leq 2$ units (ng / L), SNR: $\geq 50 * 10^6$, Mass axis stability: ≤ 0.05 amu / 24 h, Size (LXWXH): 78*50*62cm, Compatibility with automation and sample handling systems, Comprehensive interference removal in single measurement mode, High-frequency power supply unit, 27 MHz, max. 1.4 kW, Plasma ion source: Nebulizer, Coaxial	1
TOURISM & HOSPITALITY LAB				
192	1	Chef Knife	Standard, for commercial use, preferably imported	6
193	2	Multi Purpose Chef Knife	Standard, for commercial use, preferably imported	6
194	3	Carving Knife	Standard, for commercial use, preferably imported	3
195	4	Butchers Knife	Standard, for commercial use, preferably imported	3
196	5	Boning Knife	Standard, for commercial use, preferably imported	2
197	6	Filleting Knife	Standard, for commercial use, preferably imported	2
198	7	Kitchen Shears	Standard, for commercial use, preferably imported	3
199	8	Serrated Edge Slicing Bread Knife	Standard, for commercial use, preferably imported	3
200	9	Bread Knife	Standard, for commercial use, preferably imported	2
201	10	Paring Knife	Standard, for commercial use, preferably imported	3
202	11	Sharpening Rod	Standard, for commercial use, preferably imported	3
203	12	Khife Sharpener	Standard, for commercial use, preferably imported	3
204	13	Plastic Cutting Boards 5 Colors	Standard, for commercial use, preferably imported	10
205	14	Wooden Cutting Boards	Standard, for commercial use, preferably imported	6
206	15	Can Opener	Standard, for commercial use, preferably imported	6

207	16	Measuring Cups (set of 7 sizes)	Set of 7, Standard, for commercial use, preferably imported	3
208	17	Measuring Spoons (set of 5 sizes)	Set of 5 Standard, for commercial use, preferably imported	3
209	18	SS Mixing Bowls (set of 9)	Set of 9 Standard, for commercial use, preferably imported	3
210	19	Colander	small, Standard, for commercial use, preferably imported	3
211	20	Colander	large, Standard, for commercial use, preferably imported	3
212	21	Vegetable Peeler	Standard, for commercial use, preferably imported	3
213	22	Potatoe Masher	Standard, for commercial use, preferably imported	3
214	23	Egg Whisk	small, Standard, for commercial use, preferably imported	3
215	24	Egg Whisk	large, Standard, for commercial use, preferably imported	3
216	25	Salad Spinner	Standard, for commercial use, preferably imported	3
217	26	Grater	4 in 1, Standard, for commercial use, preferably imported	6
218	27	Shears (chicken)	Standard, for commercial use, preferably imported	3
219	28	Shears (Vegetables)	Standard, for commercial use, preferably imported	3
220	29	Citrus Juicer	Manual Standard, for commercial use, preferably imported	3
221	30	Garlic Press	Manual Standard, for commercial use, preferably imported	3
222	31	Spatula	Standard, for commercial use, preferably imported	3
223	32	Stirring Spoon	Standard, for commercial use, preferably imported	3
224	33	Slotted Spoon	Standard, for commercial use, preferably imported	3
225	34	Tongs Short handle	Standard, for commercial use, preferably imported	3
226	35	Tongs long handle	Standard, for commercial use, preferably imported	3
227	36	SS Ladle Medium	Standard, for commercial use, preferably imported	3
228	37	SS Ladle Large	Standard, for commercial use, preferably imported	3
229	38	Oven Mits	Standard, for commercial use, preferably imported	6
230	39	Trivet	Standard, for commercial use, preferably imported	3
231	40	Splatter Guard	Standard, for commercial use, preferably imported	3
232	41	Meat Thermometer	Standard, for commercial use, preferably imported	3
233	42	Fridge Thermometer	Standard, for commercial use, preferably imported	6
234	43	Food Storage Containers (Small)	Standard, for commercial use, preferably imported	18

235	44	Food Storage Containers (Medium)	Standard, for commercial use, preferably imported	18
236	45	Food Storage Containers (Large)	Standard, for commercial use, preferably imported	18
237	46	Heat Proof Chef Towels	Standard, for commercial use, preferably imported	18
238	47	Dish Drying Rack	Standard, for commercial use, preferably imported	6
239	48	Pot Drying rack	Standard, for commercial use, preferably imported	3
240	49	Trash Bins (large)	Standard, for commercial use, preferably imported	6
241	50	Stainless Steel Skillet	Standard, for commercial use, preferably imported	3
242	51	Saute Pan	Standard, for commercial use, preferably imported	3
243	52	Saucepan Small	Standard, for commercial use, preferably imported	3
244	53	Saucepan Medium	Standard, for commercial use, preferably imported	3
245	54	Saucepan Large	Standard, for commercial use, preferably imported	3
246	55	Stock Pot (Medium)	12 Quarts, Standard, for commercial use, preferably imported	3
247	56	Stock Pot (Large)	Standard, for commercial use, preferably imported	3
248	57	Cast Iron Skillet	Standard, for commercial use, preferably imported	3
249	58	Griddle/Grill Pan	Standard, for commercial use, preferably imported	3
250	59	Baking Tray Pan	Standard, for commercial use, preferably imported	3
251	60	Broiler Pan	Standard, for commercial use, preferably imported	3
252	61	Wok Small	Standard, for commercial use, preferably imported	3
253	62	Wok Medium	Standard, for commercial use, preferably imported	3
254	63	Wok Large	Standard, for commercial use, preferably imported	3
255	64	Roasting Pan	Standard, for commercial use, preferably imported	3
256	65	Immersion Blender	Standard, for commercial use, preferably imported	3
257	66	Kitchen Scale	Standard, for commercial use, preferably imported	3
258	67	Commerical Blender (1400 watt motor)	Standard, for commercial use, preferably imported	3
259	68	Meat Slicer 12"	Standard, for commercial use, preferably imported	2
260	69	Commercial Mixer 30 qt	Standard, for commercial use, preferably imported	2
261	70	Commercial Mixer 8 qt	Standard, for commercial use, preferably imported	2
262	71	Commerical Microwave	Standard, for commercial use, preferably imported	3

263	72	Panini Grill	Standard, for commercial use, preferably imported	3
264	73	Wall Mounted Grill	Standard, for commercial use, preferably imported	3
265	74	Commercial Rice Cooker	Standard, for commercial use, preferably imported	3
266	75	Food Warmer (Kitchen)	Standard, for commercial use, preferably imported	3
267	76	Soup Warmer (Kitchen)	Standard, for commercial use, preferably imported	3
268	77	Pressure Cooker	Standard, for commercial use, preferably imported	3
269	78	Front Desk / Reception	Front Desk Length: 6 ft., Height 3 ft. minmum length of forward approach should be 2.5 ft. Comply with governing accessibility regulations and with standard options	2
270	79	Table for Reception	Kail Wooden Table Length 5 Feet, Width 3 Feet, Height 3 Feet, Ply Thickness 5mm with standard options	2
271	80	Sofa Set for Reception	Corner Sofa 7 Seater / L Shape, Frame Material: Wood, Padding: Sponge with arm set and Non Inflatable, Specification: 396*328*57 cm or Standard, for commercial use, preferably imported	2
272	81	Chairs for Recption	Standard, for commercial use,	2
273	82	Lounge chairs	Single sofa arm chair, solid wood frame with gold steenless feet, 640*640*700 mm, or Standard for commercial use, preferably imported	10
274	83	Coffee tables	Standard, for commercial use,	7
275	84	End tables set	Standard, for commercial use,	6
276	85	Outdoor seating	Standard, for commercial use,	2
277	86	Sofa Set for Lounge	Standard, for commercial use,	2
278	87	Rugs	Standard, for commercial use,	20
279	88	Individual computer desks	Standard, for commercial use,	8
280	89	Office chairs	Standard, for commercial use,	5
281	90	Bookshelves	Standard, for commercial use	2
282	91	Conference table	Standard, for commercial use	1
283	92	Stackable chairs	Standard, for commercial use	20
284	93	Storage cabinets	Standard, for commercial use	2
285	94	Dining tables	Standard, for commercial use	2
286	95	Dining Chairs	Standard, for commercial use	20
287	96	Cabinets and storage	Standard, for commercial use	2
288	97	Bar stools	Standard, for commercial use	15

289	98	Lounge seating	Standard, for commercial use	1
290	99	Benches or booth seating	Standard, for commercial use	2
291	100	Flexible group seating and tables	Standard, for commercial use	2
292	101	Master Beds with spring Mattress	Bed with 10 inch mattress: Size 76x82 inch, Note: Size may vary 1/2" from given size according to Mattress size	3
293	102	Customized Bed with spring Mattress	Customized Bed with 10 inch mattress: Size 42x80 inch; Note: Size may vary 1/2" from given size according to Mattress size	10
294	103	Sofa Set Rooms	Standard, for commercial use	5
295	104	Room Tables	Standard, for commercial use	5
296	105	Side Tables	Standard, for commercial use	12
297	106	Writing Desk	Standard, for commercial use	6
298	107	Desk chairs	Standard, for commercial use	6
299	108	TV	TCL or equivalent standard: Screen Size: 42 inch; Weight (Kilogram): 7.8; Power Source: 67W; Voltage (V); 19.5; Dimensions Wxdxh: 725 x 465 x 197mm; HDMI Ports	8
300	109	Dresser	Walnut wood 5-Drawer Dresser 36"Wx20"Dx52"H, Cast metal knobs with matte bronze finish,	5
301	110	Coat stands	Coat stand (complete wooden size 350*420*1175mm	10
302	111	Table lamps	Height: 31 inch, Shade Diameter: 18 inch, Weight: 3 kg	15
303	112	Refrigerator	36 Inch 3-Door Refrigerator with 28.2 Cu. Ft. Capacity, Adjustable Tempered Glass Shelves, All-Around Cooling, Internal Ice Max, Sabbath Mode, Fingerprint Resistant Stainless Steel, Total Capacity: 28.2 Cu. Ft.; Refrigerator Capacity: 19.6 Cu. Ft.; Freezer Capacity: 8.6 Cu. Ft.; Width: 35 3/4 Inch; Depth: 35 3/8 Inch; Height: 70 Inch; Fingerprint Resistant: Yes; No. of Shelves: 5-8; Gallon Door Storage: Yes; Sabbath Mode: Yes; Ice Maker: Yes	2
304	113	Microwave	CAPACITY 58-LTR, BURNER POWER 2.0 KW, 2.1 KW HEATING ELEMENT, 5-FUNCTION, POWER SUPPLY 220-VOLT, TELESCOPIC RUNNER, BRASS VALVE	2
305	114	Kettle for hot water	Philips or equivalent, Capacity: 2.0 L, 1800 W, Safe and easy boiling, Food-grade stainless steel, Power cable length adjustable as required for easy storage, Wide opening for easy filling and cleaning, Easy filling and cleaning, 360° cordless pirouette base, for easier handling, Easier handling, Steam sensor, dry boiling and overheating prevention, Easy opening and filling, Safe boiling with food-grade SUS304 body, Food-grade stainless steel	8

306	115	Iron	National company or equivalent model. DC 12Volt-200W, tripping control with Thermostat, Non-Stick Coating Sole Plate, Heat-Resistant, Easy Operation	8
307	116	Iron Stand	Lasani Fabric, Cotton Dimensions: Height: 34 inches, Length: 36 inches, Depth: 14 inches, Drawer Dimensions: Height: 6 inches, Length: 17 inches, Depth: 14 inches, Iron Top Dimensions Length: 47 inches, Depth: 16 inches; Top Cover: Length:49 inches, Depth: 17.5 inches.	8
308	117	Hair dryer	Dimensions : 4 x 9.5 x 11.5 inches; 0.32 Ounces, Material: Titanium, voltage 220V	12
309	118	Curtains	Standard, for commercial use, preferably imported	20
310	119	Bed Sheets	King Size, 100% pure cotton bed sheet, white color	30
311	120	Pillow Set	Standard Size, Soft pillow set, Soft Polly cotton	20
312	121	Pillow Covers Set	Pillow Covers 18"/28", White color, 100% pure cotton	20
313	122	Blankets	white color and grey, 100% pure cotton	20
314	123	Blanket Covers	Standard, for commercial use	30
315	124	Towels	Hand towel: 50*80 cm. Bath Towel:70*140cm (premium fine quality in 100% cotton)	50
316	125	Bath Sheets	Premium fine quality with100% cotton (size small and medium)	20
317	126	Automatic Washing Machine	LG or equivalent model with Tempered Glass Door, CAPACITY: 9 kg, DIMENSION (W X H X D, MM) 600 x 850 x 560; AI Direct Drive, TurboWash™360°	2
318	127	Lockers	Stainless steel, Standard Key Lock, High Quality Paint Finish, 4" Feet at bottom of employee locker for easy cleaning.	1