



**VISAYAS**  
STATE UNIVERSITY

# **PHILIPPINE BIDDING DOCUMENTS**

(As Harmonized with Development Partners)

## **Supply and Delivery of Laboratory Equipment, Supplies and Chemicals (GOODS-22-12)**

**Government of the Republic of the Philippines**

**March 9, 2022; 9:00 AM  
PPO Conference Room, Lower Campus, Visca, Baybay City,  
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# ***Glossary of Acronyms, Terms, and Abbreviations***

**ABC** – Approved Budget for the Contract.

**BAC** – Bids and Awards Committee.

**Bid** – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender*. (2016 revised IRR, Section 5[c])

**Bidder** – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

**Bidding Documents** – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

**BIR** – Bureau of Internal Revenue.

**BSP** – Bangko Sentral ng Pilipinas.

**Consulting Services** – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

**CDA** - Cooperative Development Authority.

**Contract** – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

**CIF** – Cost Insurance and Freight.

**CIP** – Carriage and Insurance Paid.

**CPI** – Consumer Price Index.

**DDP** – Refers to the quoted price of the Goods, which means “delivered duty paid.”

**DTI** – Department of Trade and Industry.

**EXW** – Ex works.

**FCA** – “Free Carrier” shipping point.

**FOB** – “Free on Board” shipping point.

**Foreign-funded Procurement or Foreign-Assisted Project**– Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

**Framework Agreement** – Refers to a written agreement between a procuring entity and a supplier or service provider that identifies the terms and conditions, under which specific purchases, otherwise known as “Call-Offs,” are made for the duration of the agreement. It is in the nature of an option contract between the procuring entity and the bidder(s) granting the procuring entity the option to either place an order for any of the goods or services identified in the Framework Agreement List or not buy at all, within a minimum period of one (1) year to a maximum period of three (3) years. (GPPB Resolution No. 27-2019)

**GFI** – Government Financial Institution.

**GOCC** – Government-owned and/or –controlled corporation.

**Goods** – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term “related” or “analogous services” shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

**GOP** – Government of the Philippines.

**GPPB** – Government Procurement Policy Board.

**INCOTERMS** – International Commercial Terms.

**Infrastructure Projects** – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

**LGUs** – Local Government Units.

**NFCC** – Net Financial Contracting Capacity.

**NGA** – National Government Agency.

**PhilGEPS** - Philippine Government Electronic Procurement System.

**Procurement Project** – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

**PSA** – Philippine Statistics Authority.

**SEC** – Securities and Exchange Commission.

**SLCC** – Single Largest Completed Contract.

**Supplier** – refers to a citizen, or any corporate body or commercial company duly organized and registered under the laws where it is established, habitually established in business and engaged in the manufacture or sale of the merchandise or performance of the general services covered by his bid. (Item 3.8 of GPPB Resolution No. 13-2019, dated 23 May 2019). Supplier as used in these Bidding Documents may likewise refer to a distributor, manufacturer, contractor, or consultant.

**UN** – United Nations.

## ***Section I. Invitation to Bid***



## INVITATION TO BID FOR SUPPLY AND DELIVERY OF LABORATORY EQUIPMENT, SUPPLIES AND CHEMICALS

- The *Visayas State University* through the *GF, STF, TF* intends to apply the sum of *Three Million Eighty Thousand One Hundred Thirty-Nine Pesos (PhP 3,080,139.00)* being the ABC to payments under the contract for *Supply and Delivery of Laboratory Equipment, Supplies and Chemicals (GOODS-22-12)*. Bids received in excess of the ABC shall be automatically rejected at bid opening.

The *Visayas State University*, through the *GF, STF, TF* intends to apply the following ABC per item to payments under the contract for each item, to wit:

Item No.	Description	Unit	Qty	ABC/Unit	Total ABC
1	3 layer Non-woven surgical face mask, at least 50 pcs. per box	box	1	200.00	200.00
2	500 ml Type 1, class A borosilicate glass Beaker	pcs	15	700.00	10,500.00
3	5-Sulfosalicylic Acid Dihydrate Technical, 500g	btl	1	2,500.00	2,500.00
	☐ACS reagent, ≥ 99%				
	☐CAS 5965-83-3				
	☐Crystalline Solid, Powder				
	☐500g				
	☐Technical grade				
4	Acetone, Technical Grade, 1gal	gal	1	1,600.00	1,600.00
5	Activated Acid-washed Charcoal	packs	3	15,000.00	45,000.00
	☐Chemical must be plant tissue culture tested for at least 20 years				
	☐ISO complaint				
	☐ACS REAG				
	☐PH EUR				
	☐meets USP Standards				
	☐Bioreagent suitable for cell culture				
	☐2.5kg per pack				
6	Activated Charcoal suitable for plant cell and tissue culture (5g)	btl	1	2,500.00	2,500.00
7	Agar for plant cell and tissue culture (500g)	btl	1	6,000.00	6,000.00
8	Agarose (type II) suitable for plant cell and tissue culture (50g)	btl	1	9,000.00	9,000.00
9	Alcohol, Denatured	gallons	6	500.00	3,000.00
10	Ammonium Acetate, AR	kgs	2	1,800.00	3,600.00
11	Ammonium Flouride	btl	1	1,000.00	1,000.00

	■White crystalline				
	■ACS reagent, ≥98.0%				
	■500g				
12	<b>Ammonium nitrate (NH<sub>4</sub>NO<sub>3</sub>) suitable for plant cell and tissue culture</b>	kg	1	5,000.00	5,000.00
13	<b>Ascorbic acid</b>	btl	1	1,800.00	1,800.00
	■Analytical reagent grade, crystalline powder, 500 g/bottle				
14	<b>Autoclavable Pipetter of Single Channel, 0.2-2 µl</b>	pc	1	17,000.00	17,000.00
	<i>with stainless steel ejector</i>				
	<i>volume in micro liter (range: 0.2 - 2)</i>				
	<i>increment: 0.002 micro liter</i>				
	<i>systematic error in micro liter (range: ±0.024 to ±0.03)</i>				
	<i>random error in micro liter (range: ≤0.012 to ≤0.014)</i>				
	<i>systematic error percentage (range: ±12, to ±1.5)</i>				
	<i>random error in CV (range: ≤6 to ≤0.7)</i>				
	<i>each pipette should be calibrated according to ISO 8655 standards</i>				
	<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>				
	<i>secure volume lock</i>				
	<i>Five year warranty</i>				
15	<b>Autoclavable Pipetter of Single Channel, 100-1000 ul</b>	pc	1	15,000.00	15,000.00
	<i>with stainless steel ejector</i>				
	<i>volume in micro liter (range: 100 - 1000)</i>				
	<i>increment: 1 micro liter</i>				
	<i>systematic error in micro liter (range: ±3 to ±8)</i>				
	<i>random error in micro liter (range: ≤0.6 to ≤1.5)</i>				
	<i>systematic error percentage (range: ±3 to ±0.8)</i>				
	<i>random error in CV (range: ≤0.6 to ≤0.15)</i>				
	<i>each pipette should be calibrated according to ISO 8655 standards</i>				
	<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>				
	<i>secure volume lock</i>				
	<i>Five year warranty</i>				
16	<b>Autoclavable Pipetter of Single Channel, 10-100 ul</b>	pc	1	15,000.00	15,000.00
	<i>with stainless steel ejector</i>				
	<i>volume in micro liter (range: 10 - 100)</i>				
	<i>increment: 0.2 micro liter</i>				
	<i>systematic error in micro liter (range: ±0.35 to ±0.8)</i>				
	<i>random error in micro liter (range: ≤0.10 to ≤0.15)</i>				



	systematic error percentage (range: $\pm 3.5$ to $\pm 0.8$ )				
	random error in CV (range: $\leq 1.0$ to $\leq 0.15$ )				
	each pipette should be calibrated according to ISO 8655 standards				
	variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones				
	secure volume lock				
	five year warranty				
17	<b>Autoclavable Pipetter of Single Channel, 1-10 ul</b>	pc	1	17,000.00	17,000.00
	with stainless steel ejector				
	volume in micro liter (range: 1 - 10)				
	increment: 0.02 micro liter				
	systematic error in micro liter (range: $\pm 0.025$ to $\pm 0.1$ )				
	random error in micro liter (range: $\leq 0.012$ to $\leq 0.04$ )				
	each pipette should be calibrated according to ISO 8655 standards				
	variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones				
	secure volume lock				
	five year warranty				
18	<b>Autoclavable Pipetter of Single Channel, 20-200 ul</b>	pc	1	15,000.00	15,000.00
	with stainless steel ejector				
	volume in micro liter (range: 20 - 200)				
	increment: 0.2 micro liter				
	systematic error in micro liter (range: $\pm 0.5$ to $\pm 1.6$ )				
	random error in micro liter (range: $\leq 0.2$ to $\leq 0.3$ )				
	systematic error percentage (range: $\pm 2.5$ to $\pm 0.8$ )				
	random error in CV (range: $\leq 1.0$ to $\leq 0.15$ )				
	each pipette should be calibrated according to ISO 8655 standards				
	variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones				
	secure volume lock				
	five year warranty				
19	<b>Autoclavable Pipetter of Single Channel, 2-20 ul</b>	pc	1	17,000.00	17,000.00
	with stainless steel ejector				
	volume in micro liter (range: 2 - 20)				
	increment: 0.02 micro liter				
	systematic error in micro liter (range: $\pm 0.1$ to $\pm 0.2$ )				
	random error in micro liter (range: $\leq 0.03$ to $\leq 0.06$ )				
	systematic error percentage (range: $\pm 5$ to $\pm 1$ )				

	<i>random error in CV (range: <math>\leq 1.5</math> to <math>\leq 0.3</math>)</i>				
	<i>each pipette should be calibrated according to ISO 8655 standards</i>				
	<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>				
	<i>secure volume lock</i>				
	<i>five year warranty</i>				
20	<b>Basic Bench pH meters with replaceable electrode and buffer</b>	unit	1	60,000.00	60,000.00
	☑Accuracy temperature: $\pm 0.3^{\circ}\text{C}$				
	☑Accuracy pH: $\pm 0.1$				
	☑Electrical requirements: AC/DC 9 V adapter (220 VAC, 60 Hz)				
	☑Resolution (mV): 0.1 mV ( $\pm 199.9$ mV); 1 mV beyond $\pm 200$ mV				
	☑Temp probe calibration: offset in $0.1^{\circ}\text{C}$ increments; offset range $\pm 5^{\circ}\text{C}$				
	☑Range pH: 0 to 14				
	☑Accuracy mV: $\pm 0.2$ mV ( $\pm 199.9$ mV), $\pm 2$ mV beyond $\pm 200$ mV				
	☑Calibration points: 1 to 5 points with automatic buffer recognition (ABR)				
	☑Include 13-620-AE6 3-in-1 single junction gel pH/ATC electrode				
	☑Memory: 100 datasets				
	☑Resolution temperature: $0.1^{\circ}\text{C}$				
	☑Temperature compensation: automatic or manual (0 to $100^{\circ}\text{C}$ )				
	☑Temperature range metric: 0.0 to $100.0^{\circ}\text{C}$				
	☑Range mV: $\pm 1999$ mV				
	☑Resolution pH: 0.01				
	☑Power source: 220 - 240 50/60 Hz				
	☑Warranty: 2-year meter warranty; 6-month electrode warranty				
21	<b>Beaker, Glass, 150 mL</b>	pcs	10	380.00	3,800.00
	☑Low Form Beaker				
	☑Borosilicate Glass				
	☑Transparent Beaker				
	☑Thickened With Spout				
22	<b>Beaker, Glass, 2000mL, borosilicate glass</b>	pcs	2	1,000.00	2,000.00
23	<b>Benzylaminopurine (BAP) suitable for plant cell and tissue culture (5g)</b>	btl	1	4,000.00	4,000.00
24	<b>Biotin, powder, BioReagent, suitable for plant cell and tissue culture (500mg)</b>	btl	1	7,000.00	7,000.00
25	<b>Boric acid (H3BO3) suitable for plant cell and tissue culture</b>	btl	1	1,000.00	1,000.00
	<i>molecular weight: 61.83</i>				

	500 grams				
26	<b>Boric Acid, Analytical Reagent</b>	kgs	2	1,400.00	2,800.00
27	<b>Bromocres of purple suitable for plant cell and tissue culture (5g)</b>	btl	1	2,500.00	2,500.00
28	<b>Brush for cleaning 250mL Erlenmeyer Flask</b>	pc	1	250.00	250.00
	■Bristle Color: White Bristle				
	■Brush+Handle Length: 12"				
	■Brush Diameter: 1 3/8"				
	■Brush Length: 3 1/2"				
	■Suitable for cleaning 250mL Erlenmeyer Flask				
29	<b>Calcium Chloride</b>	btls	3	1,500.00	4,500.00
	■AR grade; 500g				
30	<b>Calcium Chloride (CaCl<sub>2</sub>) suitable for plant cell and tissue culture</b>	btl	1	1,600.00	1,600.00
	Dried				
	1.5-2.5mm				
	Molecular Weight: 246.47				
	500grams				
31	<b>Camera V2 Module Light-sensitive Chips 8MP Pixel with IMX219 1080P Video Suppo</b>	set	1	1,550.00	1,550.00
	■Support infrared night vision function, can switch day and night mode, night vision picture clearer.				
	■With high-definition camera quality, bring pure and exquisite picture quality experience, the image is clearer.				
	■The day&night vision camera perfectly compatible for Raspberry Pi series 4B/3B+/3B/2B Model.				
	■The product includes 1 piece night vision camera, 1 piece flex cable.				
32	<b>Camera v2 Module, Official 8MP Night Vision IMX219 Sensor</b>	set	1	2,400.00	2,400.00
	■No IR filter				
	■High-quality imagery				
	■High data capability				
	■8 megapixels fixed focus				
	■Supports 1080p, 720p60 & VGA9				
	■15-pin ribbon cable				
	■Second Generation Raspberry Pi NoIR Camera Module with Fixed Focus Lens				
	■Sony Exmor IMX219 Sensor Capable of 4K30, 1080P60, 720P180, 8MP Still				
	■3280 (H) x 2464 (V) Active Pixel Count				
	■Maximum of 1080P30 and 8MP Stills in Raspberry Pi Board				
	■2A Power Supply Highly Recommended				

33	<b>Casein hydrolyzate for tissue culture suitable for plant cell and tissue culture (100g)</b>	btl	1	2,000.00	2,000.00
34	<b>Cobalt chloride (CoCl<sub>2</sub>, 6H<sub>2</sub>O) suitable for plant cell and tissue culture</b>	btl	1	1,600.00	1,600.00
	<i>Molecular weight: 249.68</i>				
	<i>500g</i>				
35	<b>Colchicine suitable for plant cell and tissue culture (1g)</b>	btl	1	15,000.00	15,000.00
36	<b>Copper sulfate, CuSO<sub>4</sub></b>	btls	4	1,800.00	7,200.00
	■Anhydrous, Analytical reagent grade, 500g/bottle				
37	<b>Copper Sulphate, 500 grams/pack</b>	pack	1	500.00	500.00
38	<b>Cupric sulfate (CuSO<sub>4</sub>, 5H<sub>2</sub>O) suitable for plant cell and tissue culture (500g)</b>	btl	1	1,600.00	1,600.00
39	<b>D-Calcium panthothenate suitable for plant cell and tissue culture (100g)</b>	btl	1	5,600.00	5,600.00
40	<b>Digital Smart Temperature Controller K Thermocouple Thermostat</b>	sets	5	800.00	4,000.00
	■Item Name: Intelligent Thermostat				
	■Material: ABS				
	■Working Voltage: 220VAC, 50Hz/60Hz				
	■Temperature Control Accuracy: 1.0 Control Method PID Control and Self-tuning Control				
	■Working Environment: 0~50 Degree Celsius				
	■Relative Humidity: 30 Percent~85 Percent RH				
	■Input Mode: K/E/J/R/S/B/N/T/PT100/CU500 Adjustable				
	■Output Mode: Relay				
	■Features: Convenient to Use, Fine Workmanship, Durable				
	■Size: 48 x 48 x 107mm/1.89" x 1.89" x 4.21" (Approx.)				
	■Panel Size: 48 x 48mm/1.89" x 1.89" (Approx.)				
	■Hole Size: 45 x 45mm/1.77" x 1.77" (Approx.)				
	■Blue water container				
41	<b>EMS (Ethyl methanesulfonate) for plant genetic studies (10g)</b>	btl	1	8,500.00	8,500.00
42	<b>Erlenmeyer Flask, Glass, 250mL</b>	pcs	20	400.00	8,000.00
	■Material: Borosilicate Glass				
	■Good Quality				
43	<b>Erlenmeyer Flask, Glass, 500ml</b>	pcs	20	600.00	12,000.00
	■Material: Borosilicate Glass				
	■Good Quality				
44	<b>Ethylenediaminetetraacetic acid disodium salt (Na<sub>2</sub>-EDTA) suitable for plant cell and tissue culture(500g)</b>	btl	1	1,500.00	1,500.00

45	<b>Exhaust Gas Temp Sensor 2m EGT K Type Thermocouple Probe Exhaust Temperature Sensors Threads Exhaust</b>	sets	5	675.00	3,375.00
46	<b>FCI-INGAAS-1000 IR InGaAs Photodiode, Through Hole TO-46, TO-5</b>	set	1	8,400.00	8,400.00
	☐Spectrum Detected: Infrared				
	☐Package type: TO-46, TO-5				
	☐Mounting Type: Through hole				
	☐Number of Pins: 2				
	☐Diode Material: InGaAs				
	☐Minimum wavelength Detected: 900nm				
	☐Maximum wavelength Detected: 1700nm				
47	<b>Ferrous sulfate (FeSO<sub>4</sub>, 7H<sub>2</sub>O) suitable for plant cell and tissue culture</b>	btl	1	1,000.00	1,000.00
48	<b>Ferrous Sulphate</b>	btls	8	1,500.00	12,000.00
	☐Analytical Grade				
	☐500 G				
49	<b>Gellan Gum, Agar substitute gelling agent suitable for plant cell and tissue culture (250g)</b>	gms	1	15,000.00	15,000.00
50	<b>Gloves, Nitrile, Large</b>	boxes	7	500.00	3,500.00
	☐Glove Type: Chemical Resistant Disposable Gloves				
	☐Glove Material: Nitrile				
	☐Powder-Free				
	☐1 box of 100 or 50 pairs				
	☐Food Safe				
	☐Size: large				
51	<b>Gloves, Nitrile, Medium</b>	boxes	2	500.00	1,000.00
	☐Glove Type: Chemical Resistant Disposable Gloves				
	☐Glove Material: Nitrile				
	☐Powder-Free				
	☐1 box of 100 or 50 pairs				
	☐Food Safe				
	☐Size: Medium				
52	<b>Grade 1 Qualitative Filter Paper, Diameter: 12.5cm, Pore Size: 11µm, at least 100 pcs./pack</b>	pack	1	700.00	700.00
53	<b>Indoleacetic acid (IAA) suitable for plant cell and tissue culture (5g)</b>	btl	1	3,500.00	3,500.00
54	<b>Lab Gown Long Sleeves L</b>	pcs	4	500.00	2,000.00
	☐Lab Coat High-quality White				
	☐Size- Large; long sleeves				
55	<b>Latex Disposable Gloves Powder Free (Medium), 100 pcs. or 50 pairs per box</b>	boxes	2	600.00	1,200.00
56	<b>L-Proline (pure grade), 500g</b>	btl	1	3,000.00	3,000.00
	☐L-Proline (pure grade; solid 500g)				

	■Assay: ≥99%				
	■White crystals				
57	<b>Magnesium Sulphate (MgSO<sub>4</sub>.7H<sub>2</sub>O) suitable for plant cell and tissue culture</b>	btl	1	1,100.00	1,100.00
	Wt. 169.01				
	Colourless efflorescent crystalls				
	500 grams				
58	<b>Manganese sulfate (MnSO<sub>4</sub>, H<sub>2</sub>O) suitable for plant cell and tissue culture (500g)</b>	btl	1	1,100.00	1,100.00
59	<b>Methyl orange, Sodium salt</b>	btl	1	2,000.00	2,000.00
	■CAS 547-58-0				
	■25g				
	■Orange Solid, Crystalline				
	■Analytical Grade				
60	<b>Microscope Slides and cover slips</b>	pcs	1	370.00	370.00
	■Pre-Cleaned Blank slides with 100 22 x 22 mm square Cover Slip				
61	<b>Microscope Slides and Square Cover Glass</b>	box	1	450.00	450.00
	■100pc pre-cleaned blank microscope glass slides with ground edges plus 100 piece 22x22mm square glass cover slips.				
	■Slide dimensions - 1" x 3" (25.4x76.2mm) with ground edges.				
	■Cover slips are 7/8 x 7/8" (22x22mm) and 0.006" (0.13-0.17mm) in thickness.				
62	<b>Molybdc acid (sodium salt) (Na<sub>2</sub>MoO<sub>4</sub>, 2H<sub>2</sub>O) suitable for plant cell and tissue culture ( 500grams, AR)</b>	btl	1	2,200.00	2,200.00
63	<b>Multifunctional LCD Digital Multimeter DMM DC AC Voltage Current Resi</b>	set	1	940.00	940.00
	■Maximum display: 4000				
	■Operational temperature: 0-40°C, <75%				
	■RH Storage temperature: -20-60°C, <80% RH				
	■Power supply: 3V (2 * 1.5V)				
	■AAA battery (Not included) Power consumption: 4.5mW (Typical)				
	■DC voltage: 400.0mV/4.000V/40.00V/400.0V/600V DC				
	■voltage resolution: 0.1mV/1mV/10mV/100mV/1V				
	■AC voltage (RMS): 400.0mV/4.000V/40.00V/400.0V/600V				
	■AC voltage resolution: 0.1mV/1mV/10mV/100mV/1V				
	■DC current: 40.00mA/400.0mA/10.00A				
	■DC current resolution: 10µA/100µA/10mA				
	■AC current (RMS): 40.00mA/400.0mA/10.00A				
	■AC current resolution: 10µA/100µA/10mA				

	Resistance: 400.0Ω/4.000kΩ/40.00kΩ/400.0kΩ/4.000MΩ/40.00MΩ				
	Resistance resolution: 0.1Ω/1Ω/10Ω/100Ω/1kΩ/10kΩ				
	Capacitance: 4.000nF/40.00nF/400.0nF/4.000μF/40.00μF/200μF				
	Capacitance resolution: 1pF/10pF/1nF/10nF/100nF/1000nF				
	Frequency: 99.5Hz/999.5Hz/9.999kHz/99.99kHz/999.9kHz/ 9.999MHz Frequency resolution: 0.5Hz/0.5Hz/1Hz/10Hz/100Hz/1kHz				
	Duty cycle: 0.1% to 99.9%				
	Item size: 130 * 65 * 32mm / 5.1 * 2.56 * 1.26in				
	Item weight: 114.5g / 4.0oz				
	Package weight: 224g / 7.9oz				
	Package size: 16 * 8 * 5cm / 6.3 * 3.15 * 1.97in				
	Package List: 1 * Multimeter 1 * Pair of test leads 1 * English user manual 1 * Carrying bag				
64	<b>Myo-inositol suitable for plant cell and tissue culture (100gms)</b>	btl	1	2,000.00	2,000.00
65	<b>Nano Engraving Transmission Diffraction Grating Teaching, wavelength range:2</b>	set	1	3,750.00	3,750.00
	Size: 20 x 20mm				
	Material: Glass				
	Structure: Diffraction Grating				
	wavelength range: 200nm – 10,000nm				
66	<b>Nicotinic acid suitable for plant cell and tissue culture (100g)</b>	btl	1	3,000.00	3,000.00
67	<b>Ninhydrin (1,2,3 -Indanetrione monohydrate), 50g</b>	btl	1	2,000.00	2,000.00
	CAS 485-47-2				
	White solid				
	50g				
	Analytical Grade				
68	<b>Peptone</b>	btl	1	2,800.00	2,800.00
	500g for bacteriological work				
69	<b>Petroleum Ether, AR</b>	gallon	1	3,500.00	3,500.00
70	<b>Phytigel, Sigma (Should be Sigma for Protocol)</b>	kls	6	40,000.00	240,000.00
	Chemical must be plant tissue culture tested for at least 20 years				
	ISO complaint				
	ACS REAG				
	PH EUR				
	meets USP standards				
	Bio reagents suitable for cell culture				

71	<b>Portable Moisture Tester for Grain with Digital Meter Readout, Grain Tester with Carry Case</b>	set	1	20,000.00	20,000.00
	<i>Specification:</i>				
	<i>Backlit display for nighttime use</i>				
	<i>Built-in calibration button for displaying the average of saved test results</i>				
	<i>Multi-language display</i>				
	<i>Higher-frequency, capacitive circuit improves accuracy</i>				
	<i>Moisture range: 5% to 40% depending on grain tested</i>				
	<i>Temperature range: 32° to 113°F (0° to 45°C)</i>				
	<i>Repeatability &amp; Accuracy: ± 0.5% in normal moisture range for stored grain</i>				
	<i>Single-point or Precision multi-point calibration to match local elevator</i>				
	<i>Direct readout for 40 different grain scales</i>				
	<i>Case color: Black</i>				
	<i>Material: Plastic</i>				
	<i>Power source: Battery-powered</i>				
	<i>Voltage: 9 Volts</i>				
	<i>Certification: certified frustration-free</i>				
	<i>Battery included: yes</i>				
	<i>Includes Protective carrying case with shoulder strap</i>				
	<i>with warranty</i>				
72	<b>Potassium Antimony Tartrate (III) Hydrate, AR</b>	btl	1	3,000.00	3,000.00
73	<b>Potassium Chloride</b>	kgs	4	1,500.00	6,000.00
	☐Chemical must be plant tissue culture tested for at least 20 years				
	☐ISO complaint				
	☐ACS REAG				
	☐PH EUR				
	☐meets USP Standards				
	☐Bioreagent suitable for cell culture				
74	<b>Potassium Dichromate, AR Grade</b>	btls	3	1,550.00	4,650.00
	☐500 grams/poly bottle				
75	<b>Potassium iodide (KI) suitable for plant cell and tissue culture</b>	btl	1	2,200.00	2,200.00
	<i>Molecular weight 166</i>				
	<i>500 grams</i>				
76	<b>Potassium Nitrate (KNO3) suitable for plant cell and tissue culture</b>	kgs	1	5,500.00	5,500.00
	<i>1 kilogram of Potassium Nitrate</i>				
77	<b>Potassium Phosphate (KH2PO4) suitable for plant cell and tissue culture (500g)</b>	btl	1	1,200.00	1,200.00



78	<b>Pyridoxine.HCl suitable for plant cell and tissue culture(25g)</b>	btl	1	4,900.00	4,900.00
79	<b>Resealable Plastic Bag, Large</b>	packs	5	500.00	2,500.00
	■resealable pastic bag, zip lock, 340 mm x 450 mm (13" x 18"), 100 pcs per pack				
80	<b>Serial Basic Breakout - CH340G</b>	set	1	600.00	600.00
	■It works with 5V and 3.3V systems				
	■USB-to-Serial adapter				
81	<b>Sodium Hydroxide, AR 500G</b>	btls	10	1,200.00	12,000.00
	■500 g/bottle, AR, Pellets				
82	<b>Sodium Hydroxide, Technical grade, 1kg/pack</b>	packs	30	100.00	3,000.00
83	<b>soil temperature and humidity probe / waterproof I2C temperature and humidity sensor module te</b>	sets	4	2,100.00	8,400.00
	■Power supply voltage: 2.4~5.5VDC				
	■Measurement accuracy: temperature $\pm 0.1^{\circ}\text{C}$ , humidity plus or minus 1.5%RH				
	■Working test range: $-40^{\circ}\text{C}\sim 125^{\circ}\text{C}$ , 0%RH~100%RH				
	■Resolution: $0.1^{\circ}\text{C}$ , 0.1%RH				
	■Communication protocol: standard I2C protocol				
	■Line length: 1M				
	■Wiring method: VCC-red, GND-black, SCL-yellow, SDA-green				
84	<b>Stainless Steel Crucible Tongs</b>	pc	1	450.00	450.00
	■25 cm				
	■Stainless Steel				
85	<b>Stainless Steel Laboratory Microspatula</b>	pcs	2	150.00	300.00
86	<b>Standard Method Agar (PCA)</b>	btl	1	4,500.00	4,500.00
	Plate Count Agar				
	500g				
87	<b>Stirring Rod</b>	pc	1	100.00	100.00
	■big size, $\geq 10$ inches long, fire polished ends with no policeman				
88	<b>Thiamine.HCl suitable for plant cell and tissue culture (25gms)</b>	btl	1	4,900.00	4,900.00
89	<b>Toluene</b>	btl	1	7,300.00	7,300.00
	■(CAS 108-88-3)				
	■2.5 liters,				
	■Analytical Grade				
	■99.5%,				
90	<b>Triad Spectroscopy Sensor - AS7265x (Qwiic) (SPARKFUN)</b>	set	1	7,950.00	7,950.00
	■Selectable interface: I2C or Serial (115200bps)				
	■18 frequencies of light sensing from 410nm to 940nm				

	■28.6 nW/cm <sup>2</sup> per count				
	■Accuracy of +/- 12%				
	■Integrated 405nm UV, 5700k White, and 875nm IR LEDs				
	■Software control over each illumination LED as well as current control				
	■Optional external bulb or illumination control				
	■Programmed with latest firmware from AMS				
91	<b>Utility Gloves, Rubber, Large, Non-Sterile</b>	pairs	6	140.00	840.00
92	<b>Wide Mini-Sub Cell Horizontal Electrophoresis System</b>	pc	1	120,000.00	120,000.00
	Base footprint (LxWxH): 25.5x17.8x6.8cm				
	Base buffer volume: 650-900ml				
	Base Gel size: 15x7cm				
	Tray sizes: 15x10 cm				
	Base: Molded clear plastic				
	Gel Casting gates: Aluminum				
	Safety Lids: Molded clear Plastic				
	Electrode wire guard: Molded polycarbonate				
	Banana Plugs: Gold-plated brass, 4.4cm length				
	Electrode: Platinum, 0.25mm diameter				
	Electrical cables: Dual, 20AWG, tinned copper wire cable, Flame-retardant polyurethane insulation jacket				
	Electrical leads: Nickel-silver				
	Gel Tray: UV- transparent acrylic plastic (UVTP)				
	Combs: Molded plastic and machined acrylic				
	Gel casting device: polycarbonate 0.64 cm silicon foam				
	Input power: Nominal= 220–240 VAC, 50–60 Hz; 700 W maximum				
	with power supply				
	Actual = 90-132 or 198-264 VAC, 50-60-Hz				
	Fuses: 2.5 A, 250VAC, 5mmx20mm. Type T				
	Input power cord: 3-wired; grounded				
	Output (programmable)				
	Voltage: 10V to 300V, fully adjustable in 1 V steps				
	Voltage accuracy: ±2% of reading or 3 volts, whichever is more				
	Current: 4mA to 400mA, fully adjusted in 1 mA steps				
	Current accuracy: ±2% of reading or 3mA, whichever is more				
	Power(maximum): 75W				
	Terminals: 4-pair recessed banana jack, floating parallel				
	Timer Control: 001-999 minutes, fully adjustable				
	Ripple: 1% @300 V and 70W				

	Line Regulation: 1% @300 V and 70W, 90-132 or 198-264 VAC				
	Load Regulation: 1% @300 V for 50% change in output load				
	Drift: 1% @ after 15mins warm up at 300V and 70W				
	Noise: 55dBA at 1 meter				
	Readout stability: Volts= $\pm$ V; Current: $\pm$ 1Ma				
	Auto power up after power failure: User selectable, setup values maintained				
	Safety compliance: EN-61010				
	EMI: Conforms to CE standard for emissions and immunity Class A, testes only at 230 V				
	Display function: 3-digit LED display, voltage, current or time				
	Function Modes: Constant voltage, constant current, timer, pause, user selectable				
	Automatic power up after power failure				
	Envi: Operating Tem (40°C); Humidity (0-95%, in the absence of condensation)				
	Dimensions (W x D x H): 25 x 21 x 8.5 cm				
	unit is stackable				
	Inclusions: Lid with Cables, 15cm x 10cm (WxL) UV transparent tray, Leveling bubble, 15-well comb, fixed height, 1.5 mm thickness, 20-well comb, fixed height, 1.5 mm thickness, Gel caster, PowerPac Basic Power Supply				
93	<b>Zinc sulfate (ZnSO<sub>4</sub>, 7H<sub>2</sub>O) suitable for plant cell and tissue culture</b>	btl	1	1,200.00	1,200.00
	molecular weight: 287.54				
	500grams				
94	<b>1.8 mL Cryotubes</b>	packs	30	175.00	5,250.00
	■1.8ml freezing tube				
	■Material: Plastic				
	■Color: clear with orange caps				
	■Packaging: 10pcs/pack				
	■Purpose: Multifunctional cryotubes				
95	<b>1-5 mL Pipette Tips</b>	packs	4	1,200.00	4,800.00
	■5000 uL (5ml) pipette tips				
	■Diameter of inner tube: 13 mm				
	■Available in bulk packs.				
	■Virgin polypropylene.				
	■Autoclavable				
	■Color: Natural				
	■Package: 300pcs/pack				
	■1000-5000uL (1-5mL) capacity				
96	<b>5 ml Pipette Rectangle Pipette Tip Box</b>	units	3	750.00	2,250.00
	■Material: Plastic, autoclavable				
	■28 Positions				

	☐Fit for 5ml pipettor tips				
	☐Each hole diameter : 11mm/0.43"				
	☐Total size: 12 x 9.3 x 16 cm/4.72" x 3.66" x 6.3" (LxWxH).				
	☐Weight: 148g				
	☐Empty box, not including tips				
97	<b>5ml Plastic Centrifuge - Microtubes/Vials</b>	packs	3	257.00	771.00
	☐Specifications:				
	◀Scale: 5ml (Permissible error 0.1 ml)				
	◀Length: 63mm / outer diameter: 15mm				
	◀Material: PP				
	◀Type: Disposable				
	◀Withstand temperature range: -80 ? + 121 degrees C				
	◀Autoclavable: 121 degree C.				
	◀Highest speed: 12000 r/min, continuous work for 15 minutes				
	◀Benefits: Smooth side walls, good transparency, good sealing lid, the sample is not volatile, convenient printing scale experimental measurement.				
	◀Package include: 30 x 5ml plastic centrifuge test tube vial container				
98	<b>Constant Temperature Incubator</b>	unit	1	67,000.00	67,000.00
	☐Capacity: 50L				
	☐TEMP RANGE: RT+5-65°C				
	☐TEMP PRECISION: 0.1 °C				
	☐Features:				
	☐LCD display				
	☐Microprocessor temperature controller				
	☐The working chamber adopts round angle structure, easy to clean.				
	☐Double door design and magnetic door sealing.				
	☐Water-jacket function which helps to keep long time temperature upon power off.				
	☐Water overflow protection				
	☐Safety function:				
	☐Over temperature protection, temperature sensor malfunction alarm.				
	☐Parameters can be saved automatically when power off or system error.				
	☐High and low water level alarm, automatic heating off for low water level.				
99	<b>Horizontal Benchtop Autoclave Steam Sterilizer</b>	unit	1	80,000.00	80,000.00
	☐Horizontal Benchtop Autoclave Steam Sterilizer, 24 L				
	☐Specifications:				
	☐Chamber Capacity: 26x46cm				


	☐Inside Capacity: 24.41L				
	☐Sterilize Temperature: 126 deg. celsius (highest)				
	☐Sterilize Pressure: 1.5kg/cm3 (highest)				
	☐Sterilize Time: 35 minutes				
	☐Heater: 1500W				
	☐Material Quality: Stainless Steel SUS No. 304, Boiler chamber surface with burnish				
	☐Electric Current: 220V 7A9A				
	☐Safety Equipment: Double pressure adjustment, adjust the inner pressure, if over standard value automatic vent				
100	<b>Laboratory Stool/Chair, Wheeled</b>	pc	1	4,500.00	4,500.00
	Anti-static stool				
	Adjustable height: at least 40-60 cm				
	Weight capacity: at least 300lbs				
	Ergonomic with hip to mid-waist level back support				
	With round footrest/ foot ring				
	Anti-slip seat material: Rugged polyurethane				
	No. of wheels: 5				
	Standard style w/polished aluminum base: 20"-30"				
	Seat shape: Round				
	Color: Black				
101	<b>Manual Ball Sealer for Semen Straws, 0.5mL Set</b>	set	1	63,000.00	63,000.00
	☐used for sealing individual 0.5ml semen straws.				
	☐Includes:				
	◀Sealing ball, glass, for 0.5 ml straws, black (REF: 13400/1000) - 1 pack for 1000 pcs				
	◀Sealing ball, metal, for 0.5 ml straws (REF: 13400/9900) - 2 packs for 2000 pcs				
	◀EcoStraw, 0.5 ml, transparent grey (REF: 13408/3074) - 1 pack for 2500pcs				
	◀1 MiniCutter for semen straws (REF: 17062/0010)				
102	<b>Micro Centrifuge Ventilated (Ambient)</b>	unit	1	190,000.00	190,000.00
	☐Angle rotor 24 x 1.5 ml / 2.0 ml, with standard cover				
	☐Angle of rotor: 45°				
	☐Max. speed: 15000 rpm				
	☐Max. RCF: 21380 x g				
	☐Construction:				
	☐Weight without rotor: at most 35 kg (77 lbs)				
	☐The centrifuge's main body shall be constructed from electrogalvanized steel; chamber construction is plastic ABS (Acrylonitrile butadiene styrene).				

	☐ <i>External surfaces are powder coated with Isocide™ antimicrobial coating on all painted surfaces to inhibit bacterial growth.</i>				
	☐ <i>Power requirements:</i>				
	☐ <i>The centrifuge shall work on 230 V AC, 50/60 Hz</i>				
	☐ <i>Performance:</i>				
	☐ <i>RCF range: 10-21380 x g</i>				
	☐ <i>Speed range: 200-15000 rpm</i>				
	☐ <i>Maximum volume: 44 x 1.5/2.0 ml; 4 x 8 PCR strips; 24 capillaries</i>				
	☐ <i>Number of rotor options: 7</i>				
	☐ <i>Temperature control range: Ambient</i>				
	☐ <i>Time set range: 99 hrs 59 mins / 59 min 50 s in 1min / 10s increments / continuous</i>				
	☐ <i>Maintenance-free, brushless motor</i>				
	☐ <i>Equipped with German-originated motor, requiring neither bearing replacement nor change oil.</i>				
	☐ <i>No carbon brush, low interference to radio equipment.</i>				
	☐ <i>Aerosol-tight rotor</i>				
	☐ <i>High-quality, extremely robust aluminum lid rotor for aerosol-tight centrifugation</i>				
	☐ <i>All rotor, buckets, lids, and adapters are autoclavable (20 min, 121°C).</i>				
	☐ <i>V-balance™ weight imbalance protection</i>				
	☐ <i>Automatic imbalance recognition that allows the rotor to decelerate and stop.</i>				
	☐ <i>Genuine-Protec™ safety lid design</i>				
	☐ <i>Safety lid with motor-driven design, provides a real safe protection for misoperation.</i>				
	☐ <i>Large storage space</i>				
	☐ <i>Allow the users to edit and store up to 99 programs with speed, centrifugal force, running time, temperature, and acceleration or deceleration rate, and rotor code.</i>				
	☐ <i>Automatic conversion between RPM and RCF</i>				
	☐ <i>Adjustable acceleration / deceleration control system- Offer 10 different types of acceleration / deceleration rate options. Both 0-9 options on acceleration/deceleration.</i>				
	☐ <i>Alarm system- Audible and visual alarms are activated during system failure. There are total of 10 alarm sounds available.</i>				
	☐ <i>Overspeed protection (OSP)</i>				
	☐ <i>Over-temperature protection (OTP)</i>				
	☐ <i>Various operation mode- Three types of spin mode: short spin for short running, continuous spin and time-setting spin can be chosen to suit various applications.</i>				

	<ul style="list-style-type: none"> <li>Real-time modification of parameter - The parameters like rotary speed, RCF, running time, and temperature can be adjusted during the operation to improve your working efficiency.</li> </ul>				
	<ul style="list-style-type: none"> <li>Controller:</li> </ul>				
	<ul style="list-style-type: none"> <li>Microprocessor control system - Big rotary knob and buttons, convenient for rotation and operation and large LCD screen with clear indication of running condition including rotor, speed, time etc.</li> </ul>				
	<ul style="list-style-type: none"> <li>Operation panel is water-proof which can well protect the inner electric parts.</li> </ul>				
	<ul style="list-style-type: none"> <li>An error message is displayed on LCD for troubleshooting and an audible alarm is activated during system failure.</li> </ul>				
103	<b>Microwave Oven, 30L</b>	unit	1	12,000.00	12,000.00
	<ul style="list-style-type: none"> <li>30 Liters Microwave Oven</li> </ul>				
	<ul style="list-style-type: none"> <li>Quick Defrost</li> </ul>				
	<ul style="list-style-type: none"> <li>Push Bottom + Knob + Digital</li> </ul>				
	<ul style="list-style-type: none"> <li>Automatic Programmes</li> </ul>				
	<ul style="list-style-type: none"> <li>5 Power Levels</li> </ul>				
	<ul style="list-style-type: none"> <li>LED White Color</li> </ul>				
	<ul style="list-style-type: none"> <li>Turntable Size: 315mm</li> </ul>				
	<ul style="list-style-type: none"> <li>Voltage: 230V</li> </ul>				
	<ul style="list-style-type: none"> <li>Frequency: 60Hz</li> </ul>				
	<ul style="list-style-type: none"> <li>Microwave Power: 100W</li> </ul>				
104	<b>PET Seal Bottles/Reagent Vials</b>	packs	10	230.00	2,300.00
	<ul style="list-style-type: none"> <li>EREMY1 Portable Bottle Container PET Seal Bottles Spray Bottle Pill Container Powder Container Reagent Vials Plastic Chemical Container</li> </ul>				
	<ul style="list-style-type: none"> <li>Color: Clear</li> </ul>				
	<ul style="list-style-type: none"> <li>Quantity: 10pcs/pack</li> </ul>				
	<ul style="list-style-type: none"> <li>Type: Refillable Bottles: 15ml, 20ml, 30ml, 60ml</li> </ul>				
105	<b>Pipettor Set - Volumetric Pipette Controller and Miropipette Pipettors Complete</b>	set	1	85,000.00	85,000.00
	<ul style="list-style-type: none"> <li>1- Electronic pipette controller - 0.1-200mL range; battery pack: Lithium battery 2.4V; pipetting speed: 50ml in less than 10 seconds; for glass and plastic pipettes from 0.1-200ml; includes assorted reusable/autoclavable glass pipettes 10-50mL capacity</li> </ul>				
	<ul style="list-style-type: none"> <li>4- Micropipette set - fully autoclavable; volumes: 2uL-20uL, 10uL-100uL, 100uL-1000uL, 500uL-5000uL; color-coded push buttons for each volume; includes carousel stand</li> </ul>				
106	<b>Plastic Dredge Reagent Bottles</b>	set	1	550.00	550.00
	<ul style="list-style-type: none"> <li>Made of PE material for durable and practical to use.</li> </ul>				
	<ul style="list-style-type: none"> <li>250ml capacity</li> </ul>				

	■Color: white with blue cap				
	■Size: About 11.00 x 7.00 x 5.00cm/4.32 x 2.75 x 1.97 inch.				
	■The product is light and compact, easy to use and portable to carry.				
	■Package Includes: 10 x bottles				
107	<b>Rectangle Microscope Glass Slide Holder Box</b>	packs	2	270.00	540.00
	■Microscope 5-Slide Box				
	■Material : Plastic				
	■Each Box Can Hold 5 pieces of microscope slides				
	■Box Size : 8.7 x 2.8 x 1.9cm				
	■Fit Slide Size : 7.8x 2.6cm				
	■Package Weight : 100g				
	■Package : 10 x Microscope Slide Box				
108	<b>Stainless Steel Thermal Insulated Flask</b>	units	5	450.00	2,250.00
	■Thermal Cup Specifications:				
	■Keeps warm and cold, can be filled with water to keep warm				
	■Sealed and leak-proof, heat insulation and scalding				
	■Hook and handle- easy to take				
	■500 mL Portable Stainless Steel Food Thermal Insulated Container				
	■Leakproof Thermal Cup Vacuum Flasks				
	■Material: 304 stainless steel+PP+PS+silicone				
	■Size: 15*9.6cm				
	■Color: yellow/blue/red				
109	<b>Sterile Speciment/Reagent Cup with Lid</b>	packs	10	150.00	1,500.00
	■Sterile speciment/reagent cup with lid				
	■60ml capacity with built in plastic spoon				
	■leak free				
	■6 pieces/pack				
	<b>Rebidding(GOODS-21-52)</b>				
110	<b>1X Dulbecco's Modified Eagle Medium (DMEM)</b>	pack	1	26,000.00	26,000.00
	For cell culture: mammalian suitable				
	Components: 4.5g/L D-Glucose, L-glutamine, 110mg/L Sodium pyruvate				
	Pack of 10 bottles, 500mL per bottle				
	Sterile filtered				
111	<b>3 layer Non-woven surgical face mask, at least 50 pcs. per box</b>	boxes	3	200.00	600.00
	3 layer Non-woven surgical face mask				
112	<b>5000 ul pipette tips (Neutral), at least 1000 pcs. per pack</b>	packs	3	2,300.00	6,900.00
	■5000 ul pipette tips (Neutral)				
113	<b>Activated Acid-washed Charcoal</b>	pack	1	15,000.00	15,000.00



	☑Chemical must be plant tissue culture tested for at least 20 years				
	☑ISO complaint				
	☑ACS REAG				
	☑PH EUR				
	☑meets USP Standards				
	☑Bioreagent suitable for cell culture				
	☑2.5kg per pack				
114	<b>Blot Filter paper, at least 8.6 x 13.5 cm</b>	pack	1	12,100.00	12,100.00
	☑Material: Filter paper from 100% cotton fiber				
	☑For blotting applications as part of the gel, membrane, and filter paper stack, or sandwich				
	☑Dimension: at least 8.6 x 13.5 cm				
	☑Pack of at least 50 sheets				
115	<b>Filter Paper, 12.5 cm. Ashless #42 or equivalent</b>	boxes	14	2,000.00	28,000.00
	Pore size:2.5um				
	at least 100 pcs. per box				
116	<b>Grade 1 Qualitative Filter Paper, Diameter: 12.5cm, Pore Size: 11µm, at least 100 pcs./pack</b>	packs	2	1,500.00	3,000.00
	☑Grade 1 Qualitative Filter Paper, Diameter: 12.5cm, Pore Size: 11µm				
117	<b>Ice Box Cooler, 110 Liters</b>	boxes	20	4,000.00	80,000.00
	Plastic Cooler Box 110 Liters, 100 kg capacity L-69 x W-49 x H-56 cm with drain system 72 hours insulation time UV resistant Impact resistant Food grade; Color: Blue				
					
118	<b>Lab Gown Long Sleeves M</b>	pcs	2	500.00	1,000.00
	☑Lab Coat High-quality White				
	☑Long Sleeves				
	☑Medium size				
119	<b>Laboratory Hot Plate Magnetic Stirrer</b>	pc	1	14,500.00	14,500.00
	• Max. heating temperature is 380°C				
	• High resolution LCD displays actual temperature and speed				
	• Brushless DC motor is maintenance free				
	• Aluminum cover with ceramic work plate, allows for immediate heat transfer				
	• External temperature control is possible with temperature sensor PT1000				
	• Digital temperature control with max.				

	temperature at 380°C				
	• Digital speed control with max. speed up to 1500rpm				
	• Max. stirring quantity of H2O at 5L				
	Work plate Dimension: 140x140mm				
	Work plate material: Aluminum cover with ceramic coating				
	Motor type: Brushless DC motor				
	Motor rating input: 2.4W				
	Motor rating output: 1.8W				
	Power: 510W				
	Heating output: 500W				
	Voltage: 100-120/200-240V 50/60Hz				
	Stirring positions: 1				
	Max. stirring quantity[H2O]: 5L				
	Max. magnetic bar[length]: 50mm				
	Speed range: 200-1500rpm				
	Speed display: LCD				
	Temperature display: LCD				
	Heating temperature range: Room temp.+5°C - 380°C				
	Over heat Protection: 420°C				
	Temperature display accuracy: ±0.1°C				
	External temperature sensor: PT1000 (accuracy ±0.5°C)				
	Control accuracy of sensor: ±20rpm				
	Protection class: IP21				
	Dimension [W x D x H]: 320x180x108mm				
	Weight: 2.2kg				
	Permissible ambient temperature and humidity: 5-40°C 80%RH				
120	<b>Laboratory Weighing Boats</b>	boxes	2	1,000.00	2,000.00
	<i>Plastic, 100 mL;</i>				
	at least 100 pcs. per box				
121	<b>Resealable Plastic Bag, Large</b>	packs	5	500.00	2,500.00
	<i>resealable pastic bag, zip lock, 340 mm x 450 mm (13" x 18"), 100 pcs per pack</i>				
122	<b>Resealable Plastic Bag, Medium</b>	packs	7	150.00	1,050.00
	<i>resealable plastic bag, zip lock, 140 mm x 200 mm (5 1/2" x 7 1/2"), 100 pcs per pack;</i>				
123	<b>Reversible Protein Stain Kit for PVDF Membranes</b>	btls	2	19,510.00	39,020.00
	<i>Molecular biology grade Colorimetric in-blot detection method Contains sensitizer, reversible stain, destaining agent, and stain eraser Sufficient for at least 10 PVDF membranes from mini gels Kit for at least 10 PVDF membranes, Bottle of 1.75L ;</i>				
124	<b>Stainless Steel Trays, for Laboratory Use</b>	pcs	110	720.00	79,200.00

	(L 36 cm x W 27 cm); (Depth 6.5 cm);				
125	<b>Sterile Water for Injection, 100ml per bottle</b>	btls	170	120.00	20,400.00
	<i>Other Specification:; Parental Sterile Non-Pyrogenic Diluent;</i>				
126	<b>Gloves, Nitrile, Large</b>	boxes	10	500.00	5,000.00
	☐Glove Type: Chemical Resistant Disposable Gloves				
	☐Glove Material: Nitrile				
	☐Powder-Free				
	☐1 box of 100 or 50 pairs				
	☐Food Safe				
	☐Size: large				
127	<b>Laboratory Glass Dyeing Cylinder Rack with Cover (Circular)</b>	pcs	2	600.00	1,200.00
	☐with cover				
	☐5 circular				
128	<b>Sterile Syringe Filters Nylon 25 mm Diameter 0.45 um Pore Size Individually Packaged 10/pk</b>	packs	3	2,000.00	6,000.00
129	<b>Styrofoam Box Z1</b>	boxes	15	180.00	2,700.00
	☐8.5 x 8.5 x 6.75 inches				
130	<b>Herbarium Mounting Paper</b>	packs	3	1,650.00	4,950.00
	<i>Desired product: Carolina Biological Supply Herbarium Mounting Paper</i>				
	<i>Specifications:</i>				
	<i>Acid-free: Yes</i>				
	<i>Size (LxW) : 11-1/2 x 16-1/2".</i>				
	<i>Thickness: 188 mm</i>				
131	<b>Microcentrifuge</b>	packs	2	900.00	1,800.00
	<i>Desired product: Eppendorf Tube® 5.0 mL (EP-00301)</i>				
	<i>Specifications:</i>				
	<i>Cap Type: Snap Cap</i>				
	<i>Capacity: 5.0 milliliters</i>				
	<i>Length: 54 millimeters</i>				
	<i>Material: Polypropylene (PP)</i>				
	<i>Autoclavable: Yes</i>				
	<i>Temp range: +121 °C to -196 °C.</i>				
	<i>Color: clear</i>				
132	<b>Temperature-Humidity Data Logger</b>	pcs	5	2,000.00	10,000.00
	☐Portable and hand-held				
	☐16000 data recording capacity.				
	☐Adjustable record interval: 10s~24hour				
	☐Multi-function LCD				
	☐Internal NTC temperature thermal sensor with optional external sensor				
	☐Data export in PDF/EXCEL via data management software				

	☐Selectable °F/°C temperature unit				
	☐Size: approx. 84 (L) x 44(W) x 20 (H) mm				
	☐Good quality				
	☐Durable				
133	<b>Portable Oxygen Monitor</b>	unit	1	35,000.00	35,000.00
	☐Personal single gas monitor designed for protection in workspaces where liquid nitrogen is used.				
	☐Portable/pocket size				
	☐Lighweight				
	☐IP-67 waterproof rating				
	☐Audible/visual/vibration alarms				
	☐Automatic backlight				
	<b>Rebidding (GOODS-22-08)</b>				
134	<b>L-Glutamine, ≥99% (HPLC), 100g</b>	btl	1	6,000.00	6,000.00
	☐ ≥99% (HPLC grade)				
	☐ 100g per bottle				
135	<b>6-Benzylaminopurine, 5g/btl</b>	btl	1	1,500.00	1,500.00
	☐ suitable for plant cell culture				
136	<b>D-Pantothenic acid hemicalcium salt, 5g</b>	btl	1	1,500.00	1,500.00
137	<b>95% Ethyl Alcohol, Technical Grade (Gallon)</b>	gallons	2	800.00	1,600.00
138	<b>Agar Agar</b>	Kilo	1	2,800.00	2,800.00
139	<b>Stirring Rod</b>	pcs	3	100.00	300.00
	☐ big size, 10 inches long				
	☐ fire polished ends with no policeman				
140	<b>Barfoed's Reagent Solution 1000mL</b>	btls	6	400.00	2,400.00
	☐ Technical Reagent Grade				
	☐ 1000mL per bottle				
141	<b>Glycerine</b>	liters	4	300.00	1,200.00
	☐ Glycerine Technical Grade				
	☐ 1L/bot.				
142	<b>Canada Balsam, for microscopy, 100ml</b>	btl	1	1,800.00	1,800.00
143	<b>Coplin Jar with cover</b>	pcs	6	750.00	4,500.00
	Specification:				
	Internal Width (in)1 11/64				
	Internal Height (in)2 61/64				
	Internal Depth (in)1 11/64				
	Internal Width (cm)3				
	Internal Height (cm)7.5				
	Internal Depth (cm)3				
144	<b>Safranin O Solution</b>	btl	1	1,800.00	1,800.00
	☐ 250ml				
145	<b>Ethyl Alcohol (95%)</b>	canister s	2	7,500.00	15,000.00
	Container size: Plastic waterjug (20L)				
146	<b>Proteinase K</b>	pack	1	9,400.00	9,400.00
	Molecular biology grade, DNase-Free, RNase-Free				

	For general digestion of proteins				
	Lyophilized form				
	Pack of at least 100mg with appropriate buffer				
147	<b>Sodium dodecyl sulfate (SDS)</b>	btl	1	27,000.00	27,000.00
	■Molecular biology grade, at least ≥99.0% assay quality				
	■Suitable for protein analysis and electrophoresis				
	■Dnase-free and Rnase-free				
	■Phosphatase-free and proteases-free				
	■Bottle of at least 500g				
148	<b>Ammonium Nitrate</b>	kls	2	5,500.00	11,000.00
	■AR grade; at least 98% purity				
	■Molecular Wt. 80.043 grams per mol.				
	■1kg/pack				
149	<b>Mannitol (AR)</b>	packs	2	1,500.00	3,000.00
	Formula: C <sub>6</sub> H <sub>14</sub> O <sub>6</sub>				
	Molecular Wt. 182.172g/mol.				
150	<b>Sorbitol (AR)</b>	packs	2	2,000.00	4,000.00
	Chemical Formula: C <sub>6</sub> H <sub>14</sub> O <sub>6</sub>				
	Molecular Wt. 182.172 g/mol.				
151	<b>Agar Powder</b>	btls	2	1,400.00	2,800.00
	for plant tissue culture, 1kg				
152	<b>Ethylmethanesulfonate, EMS</b>	gm	1	500.00	500.00
	- a mutagenic chemical				
	Molecular Weight: 124.16 g/mol				
	Molecular Formula: C <sub>3</sub> H <sub>8</sub> O <sub>3</sub> S				
153	<b>Potassium phosphate monobasic, KH<sub>2</sub>PO<sub>4</sub></b>	btls	2	1,450.00	2,900.00
	Analytical grade				
	Use for enzyme buffers and chemical assays				
	Bottle of 500g				
154	<b>Casein Hydrolysate</b>	bot	1	5,000.00	5,000.00
	Product Description:				
	Casein Hydrolysate is used as a general purpose culture medium.				
	Appearance: Yellow colored homogeneous free flowing powder				
	Gelling: Firm, comparable with 1.5% Agar gel				
	Colour and Clarity of prepared medium: Light to medium amber coloured, clear to slightly opalescent gel forms in Petri plates.				
	Reaction : Reaction of 3.55% w/v aqueous solution at 25°C. pH : 7.8±0.2 pH 7.60-8.00				
	Packaging: 500grams/bottle				
155	<b>Gloves, Nitrile, Medium</b>	boxes	2	500.00	1,000.00
	■Glove Type: Chemical Resistant Disposable Gloves				
	■Glove Material: Nitrile				
	■Powder-Free				

	■1 box of 100 or 50 pairs				
	■Food Safe				
	■Size: Medium				
156	<b>Ethyl Alcohol (95%) (Tech)</b>	liters	7	500.00	3,500.00
157	<b>Filter Paper, 12.5 cm. Ashless #42 or equivalent</b>	boxes	3	1,800.00	5,400.00
	Pore size: 2.5um at least 100 pcs. per box				
158	<b>Ammonium Acetate, AR</b>	kgs	4	1,800.00	7,200.00
159	<b>Copper Sulphate, 500 grams/pack</b>	packs	2	500.00	1,000.00
160	<b>Polyethylene bags</b>	pcs	150	4.00	600.00
	4 x 4 x 8"				
161	<b>Sodium Hydroxide, Technical grade, 5kg/pack</b>	btls	1	980.00	980.00
162	<b>Potassium Dihydrogen phosphate (100g)</b>	bot	1	500.00	500.00
163	<b>Separatory Funnel with Ring Stand</b>	sets	6	11,500.00	69,000.00
	Borosilicate glass				
	With stopper and cap material				
	With lab compatible lap support stand				
	With compatible ring clamp				
	Size: 1L				
164	<b>Amber Reagent Bottle, 100mL</b>	pcs	12	400.00	4,800.00
	With Stopper/Screw Cap				
	Material: Glass/Borosilicate Glass				
	Capacity: 100mL				
165	<b>Amber Reagent Bottle</b>	pcs	12	350.00	4,200.00
	With Stopper/Screw Cap				
	Material: Glass/Borosilicate Glass				
	Capacity: 50mL				
166	<b>Heating Mantle</b>	pcs	2	12,000.00	24,000.00
	■220V 500mL/1L/2L Heating Mantle & Magnetic Stirrer Stirring Temperature Regulation Digital Display Lab Electric Sleeve - 2L				
167	<b>Anti-static Cleaning Brush</b>	pcs	6	650.00	3,900.00
	Ideal for balance and lens cleaning				
	For cleaning sensitive surfaces and at the same time removing any existing static charge				
	Material: Mixture of natural fibers and conductive synthetic fibers				
168	<b>Swivel head bottle/flask brush</b>	pcs	6	750.00	4,500.00
	Ideal for a round-bottom flask or rotary flask				
	Head of brush swivels, reaching intricate curves and corners				
	Natural bristles set in wood will not scrape the cleaned surface				
	Head fits into any container with a neck diameter of at least 24 mm (1 in.) or more.				

	Reach into deep vessels with utmost 33 cm (13 in.) hardwood handle				
169	<b>Centrifuge Tube Brush</b>	packs	3	1,750.00	5,250.00
	For centrifuge tubes				
	Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water				
	Length: at least 12 inches				
	Brush size diam. x L: utmost 1 1/2 in. x 4 1/2 in.				
	Pack of 4 brushes				
170	<b>Pipette Brush</b>	packs	3	1,750.00	5,250.00
	For pipette tips				
	Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.				
	Length: at least 17 inches				
	Brush size diam. x L: utmost 3/16 - 3/4 in. x 7 1/2 in.				
	Pack of 4 brushes				
171	<b>Narrow Tube Brush</b>	packs	3	1,500.00	4,500.00
	For narrow tubes				
	Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.				
	Length: at least 12 inches				
	Brush size diam. x L: utmost 1/2 in. x 3 in.				
	Pack of 4 brushes				
172	<b>Micro Tube Brush</b>	packs	6	1,500.00	9,000.00
	For microcentrifuge tubes				
	Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.				
	Length: at least 7 inches				
	Brush size diam. x L: utmost 3/16 - 1/2 in. x 3 in.				
	Pack of 4 brushes				
173	<b>Flask Brush</b>	pcs	3	850.00	2,550.00
	For flasks				
	Material: natural bristles				
	Stiff of at least 4 1/2 x 13/4 in.				
	Brush mounted on a preformed, plastic handle that adapts itself to the curvature of the flask.				
	Overall Length: at least 16 in.				
	Fits through at least 24/40 joints.				
174	<b>Cylinder Brush</b>	packs	3	3,500.00	10,500.00
	For cylinders				
	Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.				

	Length: at least 20 inches				
	Brush size diam. x L: utmost 2 3/8 in. x 6 in.				
	Pack of 4 brushes				
175	<b>Test Tube Brush</b>	packs	3	2,000.00	6,000.00
	For test tubes				
	Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.				
	Length: at least 10 inches				
	Brush size diam. x L: utmost 1 3/8 in. x 4 in.				
	Pack of 4 brushes				
176	<b>Pipette Filler</b>	units	4	11,500.00	46,000.00
	Compatible with most plastic and glass pipettes from 0.1 to 100mL				
	Eight speeds of selection for aspiration and dispensing				
	LCD display shows low battery warning and speed setting				
	Powerful rechargeable Li-ion battery enables 8h runtime				
	Enables single-handed operation with minimum effort				
	0.45µm replaceable hydrophobic filter				
177	<b>PCR Tube Rack with Cover</b>	pcs	12	650.00	7,800.00
	For PCR tubes storage				
	Material: PP Autoclavable. Convenient Polypropylene				
	Rack for 0.2 ml PCR tubes strips and plates.				
	This rack is stackable with or without lid.				
	Capacity: 96				
178	<b>Centrifuge Rack, Multifunction</b>	units	12	750.00	9,000.00
	For storage and general-purpose				
	Fit for 10mL, 15mL, 50mL centrifuge tubes				
	The centrifuge tube rack can be disassembled and easily assembled.				
	The centrifuge tube rack after assembly has two layers				
	Holds 30 pcs of 15 mL tubes and 20 pcs of 50mL tubes				
179	<b>Glass Centrifuge Tubes, 10mL</b>	pcs	24	550.00	13,200.00
	Glass centrifuge tube with screw cap, heavy wall				
	Form: Round bottom				
	Material: Borosilicate glass				
	Capacity: 10mL with graduation				
180	<b>Glass Centrifuge Tubes, 50mL</b>	pcs	24	950.00	22,800.00
	Glass centrifuge tube with screw cap, heavy wall				
	Form: Round bottom				
	Material: Borosilicate glass				
	Capacity: 50mL with graduation				



181	<b>Laboratory Safety Goggles</b>	units	6	1,500.00	9,000.00
	Chemical and heat resistant				
	Anti-fog clear polycarbonate lens				
	Soft, flexible PVC body molds to facial contours for a comfortable fit				
	Resist a broad range of chemicals				
	Circular vents allow air to flow freely through the goggle body				
	Meet ANSI™ Z87.1-2010 or equivalent				
182	<b>Mini-spin Centrifuge</b>	units	3	15,000.00	45,000.00
	Control mode: Power direct drive				
	Max. relative centrifuge force: at least 3000 xg				
	Max. rotational speed: at least 7000rpm				
	Rotor capacity and accessories: inclusions				
	Angled rotor 0.2/0.5/1.5/2 ml*12				
	PCR rotor 0.2ml*12*4				
	Rotor for PCR plates				
	Max speed acceleration/reduction: ≤12s /≤15s				
183	<b>Laboratory Stool/Chair, Wheeled</b>	pcs	20	4,500.00	90,000.00
	Anti-static stool				
	Adjustable height: at least 40-60 cm				
	Weight capacity: at least 300lbs				
	Ergonomic with hip to mid-waist level back support				
	With round footrest/ foot ring				
	Anti-slip seat material: Rugged polyurethane				
	No. of wheels: 5				
	Standard style w/polished aluminum base: 20"-30"				
	Seat shape: Round				
	Color: Black				
184	<b>Laboratory Stool/Chair, Goblet Foot</b>	pcs	20	4,500.00	90,000.00
	Anti-static stool				
	Adjustable height: at least 40-60 cm				
	Weight capacity: at least 300lbs				
	Ergonomic with hip to mid-waist level back support				
	With round footrest/ foot ring				
	Anti-slip seat material: Rugged polyurethane				
	No. of goblet foot 5				
	Standard style w/polished aluminum base: 20"-30"				
	Seat shape: Round				
	Color: Black				
185	<b>Wall-mounted Cupboard/Cabinet</b>	units	12	12,000.00	144,000.00
	Purpose: Laboratory storage cabinet				
	Material: High quality galvanized steel sheet				
	Surface: Electrosprayed with epoxy-resin				

	Door panel: High quality galvanized steel with Glass Door				
	Dimension: at least 1240 x 380 x 570 mm				
	Doors: 3-door cabinet				
	Layer per door: one removable shelf				
	Color: must be WHITE				
	On-site installation included				
186	<b>Mobile Pedestal Cabinet, Four-drawers</b>	units	12	10,500.00	126,000.00
	Purpose: Laboratory storage cabinet				
	Material: High quality galvanized steel sheet				
	Surface: Electrospayed with epoxy-resin				
	Dimension: "must" 700 x 530 x 560 mm - the same with existing cabinet				
	Division: Four-drawers				
	Footing: Lock/unlock caster wheels				
	Color: must be WHITE				
	On-site installation included				
187	<b>Mobile Pedestal Cabinet, Single-door cabinet with single drawer</b>	units	12	10,500.00	126,000.00
	Purpose: Laboratory storage cabinet				
	Material: High quality galvanized steel sheet				
	Surface: Electrospayed with epoxy-resin				
	Dimension: "must" 700 x 530 x 560 mm - the same with the existing cabinet				
	Division: Single-door cabinet with single drawer				
	Footing: Lock/unlock caster wheels				
	Color: must be WHITE				
	On-site installation included				
188	<b>Microcentrifuge Rack with Cover, Reversible (2 mL/ 1.5 mL)</b>	units	12	850.00	10,200.00
	Polypropylene (PP)				
	Autoclavable				
	Excellent rack for benchtop use or freezer storage.				
	Excellent chemical & temperature resistance				
	80/60 well rack capacities:				
	80-Place for 1.5 & 2.0mL tubes				
	60-Place for 0.5 & 0.2mL tubes				
	With lid or cover				
189	<b>Floating Microtube Racks</b>	packs	6	2,500.00	15,000.00
	Polypropylene racks keep microtubes submerged in a water bath.				
	Polypropylene construction				
	Detachable				
	Ideal for controlling sample temperature				
	Round Racks of 1.5 and 2.0 ml				
	Capacity: 20 tubes				

	Pack of 4 floating racks				
190	<b>Mortar and Pestle, Heavy Duty</b>	units	12	850.00	10,200.00
	Mortars with spout				
	Material: Porcelain for both mortar and pestle				
	Inside grinding surface unglazed				
	Capacity: 145 mL, 90 x 70 mm				
	Heat and cold resistant				
191	<b>Amber Injection Glass Vials with cover, 2mL</b>	packs	6	3,500.00	21,000.00
	Screw top vial, 2 mL				
	Amber, write-on spot with cover				
	Autoclavable				
	Compatible with Agilent HPLC Sampler				
	Pack of 100 vials				
192	<b>Amber Injection Glass Vials with cover, 4mL</b>	packs	6	6,500.00	39,000.00
	Screw top vial, 4 mL				
	Amber, write-on spot with cover				
	Autoclavable				
	Compatible with Agilent HPLC Sampler				
	Pack of 100 vials				
193	<b>Vortex Mixer, 220V, 2800RPM</b>	pcs	4	14,000.00	56,000.00
194	<b>Liquid Nitrogen Storage/Transfer Vessel</b>	units	3	15,000.00	45,000.00
	N2 Transfer Vessel				
	Capacity: 10L				
	Lightweight aluminum dewars assure low-static evaporation rates				
195	<b>Alcohol, Denatured</b>	gal	1	500.00	500.00
196	<b>Mortar and Pestle (small)</b>	pc	1	300.00	300.00
197	<b>Lab Gown Long Sleeves L</b>	pcs	1	500.00	500.00
	■ Lab Coat High-quality White				
	■ Size- Large; long sleeves				
198	<b>Laboratory Weighing Boats</b>	pack	1	1,000.00	1,000.00
	Plastic, 100 mL				
	at least 100 pcs. pack				
199	<b>Lab Gown Long Sleeves M</b>	pc	1	500.00	500.00
	■ Lab Coat High-quality White				
	■ Long sleeves				
	■ Medium Size				
200	<b>Weighing Paper Sheet, Non-Absorbing</b>	packs	3	201.00	603.00
	High-Gloss Pack of 500				
201	<b>Reagent Bottles</b>	pcs	3	500.00	1,500.00
	■ Amber Glass Wide Mouth Bottle Chemical Reagent Storage Bottles				
	■ 250 ML capacity				
	■ Features:				
	—Glass body for chemical, thermal expansion, shock, and heat resistance.				

	—Amber glass bottles are perfect for storing materials which are sensitive to degradation from light.				
	—Wide mouth, cylindrical shape body for a wide variety of applications that require solution containment.				
	—Ground glass stopper seals the bottle to secure contents and help prevent spills and evaporation.				
	—Useful for storing both liquids and powders, widely used in chemistry and biology application				
202	<b>Graduated Cylinder, Plastic, 1000mL</b>	pcs	3	400.00	1,200.00
	Plastic, 1000ml (1L) capacity for Particle Size Analysis				
203	<b>Solar Charge Controller</b>	pcs	7	500.00	3,500.00
	Voltage: DC 12V/24V				
	Rated charge current: 30A				
	Max. PV Voltage: 50V				
	Max. PV Input power: 12V: 130W-650W, 24V: 260W-1200W				
	Charge Current: 10A-50A				
	Discharge current: 10A-50A				
	Max solar input: <50A				
	Self-consume: <10mA				
204	<b>Brush for cleaning 250mL Erlenmeyer Flask</b>	pcs	2	250.00	500.00
	■Bristle Color: White Bristle				
	■Brush+Handle Length: 12"				
	■Brush Diameter: 1 3/8"				
	■Brush Length: 3 1/2"				
	■Suitable for cleaning 250mL Erlenmeyer Flask				
205	<b>Reagent Bottle</b>	pcs	2	300.00	600.00
	■With Stopper/Screw Cap				
	■Material: Glass/Borosilicate Glass				
	■Color: Clear/Transparent Flask				
	■Capacity: 2000mL				
	■Graduation: 1800mL				
206	<b>Labware Detergent or Laboratory Dishwashing Liquid</b>	btls	6	2,500.00	15,000.00
	■Suitable for manual, ultrasonic, and machine washing				
	■Completely biodegradable				
	■Free of phosphate, chlorine, enzyme, and EDTA				
	■Contains anionic and cationic surfactants				
	■5 liters per bottle (atleast 2.5L/bot)				
	<b>Rebidding(GOODS-22-01)</b>				
207	<b>Laboratory Dishwasher</b>	unit	1	40,000.00	40,000.00
	Description: Laboratory Dishwasher for glassware				
	Specs:				
	Labware Type: Glassware				

	Door Style: Solid Door				
	Configuration: ADA Undercounter				
	Integral Heater: Yes				
	Electrical Specifications: 115 V, 16 A, 1 Ph, 60 Hz				
	Placement: Free standing				
	Water temperature: up to 93° C				
	size (60m stainless steel; placement (freestanding);				
	with built-in display (LED);				
	water consumption (10L);				
	service capacity (more than 12);				
	energetic calification (A);				
	installation type (integrated)				
	Inclusions:				
	Installation				
				<b>TOTAL:</b>	<b>3,080,139.00</b>

Bids received in excess of the ABC for each item shall be automatically rejected at bid opening.

2. The *Visayas State University* now invites bids for the above Procurement Project. Delivery of the Goods is required by *ninety (90) calendar days upon receipt of Notice to Proceed (NTP)*. Bidders should have completed, within *two (2) years* from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using a non-discretionary “*pass/fail*” criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.  
  
Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA No. 5183.
4. Prospective Bidders may obtain further information from *Visayas State University* and inspect the Bidding Documents at the address given below during *Mondays - Fridays (8:00 AM-5:00 PM)*.
5. A complete set of Bidding Documents may be acquired by interested Bidders on *17 February – 09 March 2022 until 8:30 AM* from the given address and website(s) below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Five Thousand Pesos (PhP 5,000.00). The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person, by facsimile, or through electronic means.

6. The *Visayas State University* will hold a Pre-Bid Conference on *February 24, 2022; 2:00 PM* at the *PPO Conference Room, Lower Campus, Visca, Baybay City, Leyte* and/or through video conferencing or webcasting *via Google Meet*, which shall be open to prospective bidders.

Bidders are advised to contact the BAC Secretariat before the scheduled Pre-Bid Conference for the Google Meet link.

7. Bids must be duly received by the BAC Secretariat through (i) manual submission at the office address indicated below, (ii) online or electronic submission as indicated below, or (iii) both on or before *09 March 2022 until 8:30 AM*. Late bids shall not be accepted.
8. For bidders who opt to submit their bids electronically, a hardcopy (original, copy 1, and copy 2) of the bid must be sent to the BAC through preferred couriers. A proof (e.g. courier receipt/waybill, etc.) that a hardcopy of the bid is on transit must be presented upon submission of the electronic bid.
9. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 14.
10. Bid opening shall be on *09 March 2022; 9:00 AM* at the *PPO Conference Room, Lower Campus, Visca, Baybay City, Leyte* and/or via *Google Meet*. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

Bidders are advised to contact the BAC Secretariat before the scheduled Bid Opening for the Google Meet link.

11. The *Visayas State University* reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
12. For further information, please refer to:

***Ms. Jessamine C. Ecleo (BAC Secretariat)***  
*Office of the Head for Procurement,*  
*VSU-Main, Visca, Baybay City, Leyte*  
*Mobile: 053 565 0600 local 1093 or 0998 555 0106*  
*Email: [jessamine.ecleo@vsu.edu.ph](mailto:jessamine.ecleo@vsu.edu.ph)*

***or***

***Mr. Toni Marc L. Dargantes (BAC Secretariat)***  
*Office of the VP for Planning, Resource Generation & Auxiliary Services*  
*VSU-Main, Visca, Baybay City, Leyte*  
*Mobile: 0977 7186594*  
*Email: [tmdargantes@vsu.edu.ph](mailto:tmdargantes@vsu.edu.ph)*

13. You may visit the following websites:

For downloading of Bidding Documents: <https://www.vsu.edu.ph/philgeps-opportunities>

*February 16, 2022*

**DILBERTO O. FERRAREN**  
*Chairperson, VSU BAC*

## ***Section II. Instructions to Bidders***



## **1. Scope of Bid**

The Procuring Entity, *Visayas State University*, wishes to receive Bids for the *Supply and Delivery of Laboratory Equipment, Supplies and Chemicals*, with identification number *GOODS-22-12*.

The Procurement Project (referred to herein as “Project”) is composed of *207 items*, the details of which are described in Section VII (Technical Specifications).

## **2. Funding Information**

2.1. The GOP through the source of funding as indicated below for 2022 in the amount of *Three Million Eighty Thousand One Hundred Thirty-Nine Pesos (PhP 3,080,139.00)*.

2.2. The source of funding is: NGA, the GAA, STF, and TF.

## **3. Bidding Requirements**

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manuals and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or **IB** by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have verified and accepted the general requirements of this Project, including other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

## **4. Corrupt, Fraudulent, Collusive, and Coercive Practices**

The Procuring Entity, as well as the Bidders and Suppliers, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex “I” of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

## **5. Eligible Bidders**

5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.

5.2. Foreign ownership limited to those allowed under the rules may participate in this Project.

- 5.3. Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA's CPI, must be at least equivalent to:

Bidder should comply with the following requirements:

- i. Completed at least two (2) similar contracts, the aggregate amount of which should be equivalent to at least *twenty-five percent (25%)* of the ABC for this Project; and
- ii. The largest of these similar contracts must be equivalent to at least half of the percentage of the ABC as required above.

- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.1 of the 2016 IRR of RA No. 9184.

## **6. Origin of Goods**

There is no restriction on the origin of goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN, subject to Domestic Preference requirements under **ITB** Clause 18.

## **7. Subcontracts**

- 7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than twenty percent (20%) of the Project.

The Procuring Entity has prescribed that: **Subcontracting is not allowed.**

## **8. Pre-Bid Conference**

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address and/or through videoconferencing/webcasting as indicated in paragraph 6 of the **IB**.

## **9. Clarification and Amendment of Bidding Documents**

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

## **10. Documents comprising the Bid: Eligibility and Technical Components**

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section VIII (Checklist of Technical and Financial Documents)**.

- 10.2. The Bidder's SLCC as indicated in **ITB** Clause 5.3 should have been completed within **two (2 years)** prior to the deadline for the submission and receipt of bids.
- 10.3. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. Similar to the required authentication above, for Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

## **11. Documents comprising the Bid: Financial Component**

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section VIII (Checklist of Technical and Financial Documents)**.
- 11.2. If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a certification issued by DTI shall be provided by the Bidder in accordance with Section 43.1.3 of the 2016 revised IRR of RA No. 9184.
- 11.3. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.4. For Foreign-funded Procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

## **12. Bid Prices**

- 12.1. Prices indicated on the Price Schedule shall be entered separately in the following manner:
  - a. For Goods offered from within the Procuring Entity's country:
    - i. The price of the Goods quoted EXW (ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf, as applicable);
    - ii. The cost of all customs duties and sales and other taxes already paid or payable;
    - iii. The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and
    - iv. The price of other (incidental) services, if any, listed in e.
  - b. For Goods offered from abroad:

- i. Unless otherwise stated in the **BDS**, the price of the Goods shall be quoted delivered duty paid (DDP) with the place of destination in the Philippines as specified in the **BDS**. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible source country.
- ii. The price of other (incidental) services, if any, as listed in **Section VII (Technical Specifications)**.

### **13. Bid and Payment Currencies**

13.1. For Goods that the Bidder will supply from outside the Philippines, the bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies, shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

13.2. Payment of the contract price shall be made in: Philippine Pesos.

### **14. Bid Security**

14.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.

14.2. The Bid and bid security shall be valid until *June 2022*. Any Bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

### **15. Sealing and Marking of Bids**

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

### **16. Deadline for Submission of Bids**

16.1. The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB**.

## **17. Opening and Preliminary Examination of Bids**

- 17.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

- 17.2. The preliminary examination of bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

## **18. Domestic Preference**

- 18.1. The Procuring Entity will grant a margin of preference for the purpose of comparison of Bids in accordance with Section 43.1.2 of the 2016 revised IRR of RA No. 9184.

## **19. Detailed Evaluation and Comparison of Bids**

- 19.1. The Procuring BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*," using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of the 2016 revised IRR of RA No. 9184.
- 19.2. If the Project allows partial bids, bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, as the case maybe. In this case, the Bid Security as required by **ITB** Clause 15 shall be submitted for each lot or item separately.
- 19.3. The descriptions of the lots or items shall be indicated in **Section VII (Technical Specifications)**, although the ABCs of these lots or items are indicated in the **BDS** for purposes of the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184. The NFCC must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder.
- 19.4. The Project shall be awarded as follows: One Project having several items, which shall be awarded as separate contracts per item.
- 19.5. Except for bidders submitting a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation, all Bids must include the NFCC computation pursuant to Section 23.4.1.4 of the 2016 revised IRR of RA No. 9184, which must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder. For bidders submitting the committed Line of Credit, it must be at least equal to ten percent (10%) of the ABCs for all the lots or items participated in by the prospective Bidder.

## **20. Post-Qualification**

- 20.1. Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law and stated in the **BDS**.

## **21. Signing of the Contract**

- 21.1. The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

### ***Section III. Bid Data Sheet***

# Bid Data Sheet

ITB Clause	
5.3	For this purpose, contracts similar to the Project shall be: <ul style="list-style-type: none"> <li>a. <i>Laboratory Equipment, Laboratory Supplies, Laboratory Chemicals or a combination of the foregoing</i></li> <li>b. completed within two (2) years prior to the deadline for the submission and receipt of bids.</li> </ul>
7.1	Subcontracting is not allowed.
12	The price of the Goods shall be quoted <i>DDP VSU Main, Visca, Baybay City, Leyte</i> or the applicable International Commercial Terms (INCOTERMS) for this Project.
14.1	The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts: <ul style="list-style-type: none"> <li>a. The amount of not less than <i>Sixty-One Thousand Six Hundred Two and 78/100 Pesos (PhP 61,602.78) or two percent (2%) of ABC</i>, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or</li> <li>b. The amount of not less than <i>One Hundred Fifty-Four Thousand Six and 95/100 Pesos (PhP 154,006.95) or five percent (5%) of ABC</i> if bid security is in Surety Bond.</li> </ul>
15	Bidders are requested to submit three (3) copies of its bid – 1 Original, Copy 1, and Copy 2.  For filing purposes, the bidders are urged to use <b>Red</b> envelopes for its Technical and Financial Component envelopes, including the Mother (outer) Envelope.
19.3	<i>See Section I. Invitation to Bid (Item 1) for the list of items and their corresponding total Approved Budget for the Contract (ABC).</i>
20.2	In case the PhilGEPS Platinum Certificate of Registration is not available during bid submission, it shall be submitted as a post-qualification requirement, in accordance with Section 34.2 of the 2016 Revised IRR of R.A. 9184.
21.2	<i>Not Applicable.</i>



## ***Section IV. General Conditions of Contract***

## **1. Scope of Contract**

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

Additional requirements for the completion of this Contract shall be provided in the **Special Conditions of Contract (SCC)**.

## **2. Advance Payment and Terms of Payment**

2.1. Advance payment of the contract amount is provided under Annex “D” of the revised 2016 IRR of RA No. 9184.

2.2. The Procuring Entity is allowed to determine the terms of payment on the partial or staggered delivery of the Goods procured, provided such partial payment shall correspond to the value of the goods delivered and accepted in accordance with prevailing accounting and auditing rules and regulations. The terms of payment are indicated in the **SCC**.

## **3. Performance Security**

Within ten (10) calendar days from receipt of the Notice of Award by the Bidder from the Procuring Entity but in no case later than prior to the signing of the Contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR of RA No. 9184.

## **4. Inspection and Tests**

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Project specifications at no extra cost to the Procuring Entity in accordance with the Generic Procurement Manual. In addition to tests in the **SCC**, **Section IV (Technical Specifications)** shall specify what inspections and/or tests the Procuring Entity requires, and where they are to be conducted. The Procuring Entity shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

All reasonable facilities and assistance for the inspection and testing of Goods, including access to drawings and production data, shall be provided by the Supplier to the authorized inspectors at no charge to the Procuring Entity.

## **5. Warranty**

- 6.1. In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier as provided under Section 62.1 of the 2016 revised IRR of RA No. 9184.
- 6.2. The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall, repair or replace the defective Goods or parts thereof without cost to the Procuring Entity, pursuant to the Generic Procurement Manual.

## **6. Liability of the Supplier**

The Supplier's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Supplier is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

## ***Section V. Special Conditions of Contract***

## Special Conditions of Contract

GCC Clause	
1	<p><b>Delivery and Documents –</b></p> <p>For purposes of the Contract, “EXW,” “FOB,” “FCA,” “CIF,” “CIP,” “DDP” and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of INCOTERMS published by the International Chamber of Commerce, Paris. The Delivery terms of this Contract shall be as follows:</p> <p>The delivery term applicable to this Contract is delivered <i>VSU Main Campus, Visca, Baybay City, Leyte</i>. Risk and title will pass from the Supplier to the Procuring Entity upon receipt and final acceptance of the Goods at their final destination.</p> <p>Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in Section VI (Schedule of Requirements).</p> <p>For purposes of this Clause the Procuring Entity’s Representative at the Project Site is:</p> <p style="text-align: center;"><b><i>Ms. Alicia M. Flores</i></b>  <i>Head, Supply and Property Management Office,</i>  <i>VSU-Main, Visca, Baybay City, Leyte</i>  <i>Contact #: 053 565 0600 local 1082 / 0917 6341 430</i>  <i>Email address: alicia.flores@vsu.edu.ph</i></p> <p><b>Incidental Services –</b></p> <p>The Supplier is required to provide all of the following services, including additional services, if any, specified in Section VI. Schedule of Requirements:</p> <ol style="list-style-type: none"> <li>a. performance or supervision of on-site assembly and/or start-up of the supplied Goods;</li> <li>b. furnishing of tools required for assembly and/or maintenance of the supplied Goods;</li> <li>c. furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;</li> <li>d. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and</li> <li>e. training of the Procuring Entity’s personnel, at the Supplier’s plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.</li> </ol>
	<p>The Contract price for the Goods shall include the prices charged by the Supplier for incidental services and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.</p>

	<p><b>Spare Parts –</b></p> <p>The Supplier is required to provide all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:</p> <ul style="list-style-type: none"> <li>a. such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under this Contract; and</li> <li>b. in the event of termination of production of the spare parts: <ul style="list-style-type: none"> <li>i. advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the Procuring Entity to procure needed requirements; and</li> <li>ii. following such termination, furnishing at no cost to the Procuring Entity, the blueprints, drawings, and specifications of the spare parts, if requested.</li> </ul> </li> </ul> <p>The spare parts and other components required are listed in <b>Section VI (Schedule of Requirements)</b> and the cost thereof are included in the contract price.</p> <p>The Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spare parts or components for the Goods for a period of 3 years.</p> <p>Spare parts or components shall be supplied as promptly as possible, but in any case, within 1 month of placing the order.</p>
	<p><b>Packaging –</b></p> <p>The Supplier shall provide such packaging of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in this Contract. The packaging shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the Goods’ final destination and the absence of heavy handling facilities at all points in transit.</p> <p>The packaging, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified below, and in any subsequent instructions ordered by the Procuring Entity.</p> <p>The outer packaging must be clearly marked on at least four (4) sides as follows:</p>

	Name of the Procuring Entity Name of the Supplier Contract Description Final Destination Gross weight Any special lifting instructions Any special handling instructions Any relevant HAZCHEM classifications
	<p>A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical. If not practical the packaging list is to be placed inside the outer packaging but outside the secondary packaging.</p> <p><b>Transportation –</b></p> <p>Where the Supplier is required under Contract to deliver the Goods CIF, CIP, or DDP, transport of the Goods to the port of destination or such other named place of destination in the Philippines, as shall be specified in this Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.</p> <p>Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the contract price.</p>
	<p>Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier obtains and presents to the Procuring Entity certification to this effect from the nearest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry are available but their schedule delays the Supplier in its performance of this Contract the period from when the Goods were first ready for shipment and the actual date of shipment the period of delay will be considered force majeure.</p> <p>The Procuring Entity accepts no liability for the damage of Goods during transit other than those prescribed by INCOTERMS for DDP deliveries. In the case of Goods supplied from within the Philippines or supplied by domestic Suppliers risk and title will not be deemed to have passed to the Procuring Entity until their receipt and final acceptance at the final destination.</p>

	<b>Intellectual Property Rights –</b>  The Supplier shall indemnify the Procuring Entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof.
2.2	Payment of staggered deliveries shall be allowed. Payment shall be on “as per cost of the items delivered” subject to inspection and acceptance.
4	The inspections and tests that will be conducted will be specified by the appropriate technical team of VSU to confirm conformity to the contract specifications at no extra cost to VSU.



## *Section VI. Schedule of Requirements*

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Item No.	Unit	Qty	Description	Delivered, Weeks/Months
1	box	1	3 layer Non-woven surgical face mask, at least 50 pcs. per box	All Items Should Be Delivered Within <b>90 Calendar Days</b> From Receipt Of Notice To Proceed And Purchase Order
2	pcs	15	500 ml Type 1, class A borosilicate glass Beaker	
3	btl	1	5-Sulfosalicylic Acid Dihydrate Technical, 500g	
			☐ACS reagent, ≥ 99%	
			☐CAS 5965-83-3	
			☐Crystalline Solid, Powder	
			☐500g	
			☐Technical grade	
4	gal	1	Acetone, Technical Grade, 1gal	
5	packs	3	Activated Acid-washed Charcoal	
			☐Chemical must be plant tissue culture tested for at least 20 years	
			☐ISO complaint	
			☐ACS REAG	
			☐PH EUR	
			☐meets USP Standards	
			☐Bioreagent suitable for cell culture	
			☐2.5kg per pack	
6	btl	1	Activated Charcoal suitable for plant cell and tissue culture (5g)	
7	btl	1	Agar for plant cell and tissue culture (500g)	
8	btl	1	Agarose (type II) suitable for plant cell and tissue culture (50g)	
9	gals	6	Alcohol, Denatured	
10	kgs	2	Ammonium Acetate, AR	
11	btl	1	Ammonium Flouride	
			☐White crystalline	
			☐ACS reagent, ≥98.0%	
			☐500g	
12	kg	1	Ammonium nitrate (NH <sub>4</sub> NO <sub>3</sub> ) suitable for plant cell and tissue culture	
13	btl	1	Ascorbic acid	
			☐Analytical reagent grade, crystalline powder, 500 g/bottle	
14	pc	1	Autoclavable Pipetter of Single Channel, 0.2-2 µl	
			with stainless steel ejector	

			<i>volume in micro liter (range: 0.2 - 2)</i>	
			<i>increment: 0.002 micro liter</i>	
			<i>systematic error in micro liter (range: <math>\pm 0.024</math> to <math>\pm 0.03</math>)</i>	
			<i>random error in micro liter (range: <math>\leq 0.012</math> to <math>\leq 0.014</math>)</i>	
			<i>systematic error percentage (range: <math>\pm 12</math>, to <math>\pm 1.5</math>)</i>	
			<i>random error in CV (range: <math>\leq 6</math> to <math>\leq 0.7</math>)</i>	
			<i>each pipette should be calibrated according to ISO 8655 standards</i>	
			<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>	
			<i>secure volume lock</i>	
			<i>Five year warranty</i>	
15	pc	1	<b>Autoclavable Pipetter of Single Channel, 100-1000 ul</b>	
			<i>with stainless steel ejector</i>	
			<i>volume in micro liter (range: 100 - 1000)</i>	
			<i>increment: 1 micro liter</i>	
			<i>systematic error in micro liter (range: <math>\pm 3</math> to <math>\pm 8</math>)</i>	
			<i>random error in micro liter (range: <math>\leq 0.6</math> to <math>\leq 1.5</math>)</i>	
			<i>systematic error percentage (range: <math>\pm 3</math> to <math>\pm 0.8</math>)</i>	
			<i>random error in CV (range: <math>\leq 0.6</math> to <math>\leq 0.15</math>)</i>	
			<i>each pipette should be calibrated according to ISO 8655 standards</i>	
			<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>	
			<i>secure volume lock</i>	
			<i>Five year warranty</i>	
16	pc	1	<b>Autoclavable Pipetter of Single Channel, 10-100 ul</b>	
			<i>with stainless steel ejector</i>	
			<i>volume in micro liter (range: 10 - 100)</i>	
			<i>increment: 0.2 micro liter</i>	
			<i>systematic error in micro liter (range: <math>\pm 0.35</math> to <math>\pm 0.8</math>)</i>	
			<i>random error in micro liter (range: <math>\leq 0.10</math> to <math>\leq 0.15</math>)</i>	
			<i>systematic error percentage (range: <math>\pm 3.5</math> to <math>\pm 0.8</math>)</i>	
			<i>random error in CV (range: <math>\leq 1.0</math> to <math>\leq 0.15</math>)</i>	
			<i>each pipette should be calibrated according to ISO 8655 standards</i>	
			<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>	
			<i>secure volume lock</i>	
			<i>five year warranty</i>	
17	pc	1	<b>Autoclavable Pipetter of Single Channel, 1-</b>	

			<b>10 ul</b>	
			<i>with stainless steel ejector</i>	
			<i>volume in micro liter (range: 1 - 10)</i>	
			<i>increment: 0.02 micro liter</i>	
			<i>systematic error in micro liter (range: <math>\pm 0.025</math> to <math>\pm 0.1</math>)</i>	
			<i>random error in micro liter (range: <math>\leq 0.012</math> to <math>\leq 0.04</math>)</i>	
			<i>each pipette should be calibrated according to ISO 8655 standards</i>	
			<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>	
			<i>secure volume lock</i>	
			<i>five year warranty</i>	
18	pc	1	<b>Autoclavable Pipetter of Single Channel, 20-200 ul</b>	
			<i>with stainless steel ejector</i>	
			<i>volume in micro liter (range: 20 - 200)</i>	
			<i>increment: 0.2 micro liter</i>	
			<i>systematic error in micro liter (range: <math>\pm 0.5</math> to <math>\pm 1.6</math>)</i>	
			<i>random error in micro liter (range: <math>\leq 0.2</math> to <math>\leq 0.3</math>)</i>	
			<i>systematic error percentage (range: <math>\pm 2.5</math> to <math>\pm 0.8</math>)</i>	
			<i>random error in CV (range: <math>\leq 1.0</math> to <math>\leq 0.15</math>)</i>	
			<i>each pipette should be calibrated according to ISO 8655 standards</i>	
			<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>	
			<i>secure volume lock</i>	
			<i>five year warranty</i>	
19	pc	1	<b>Autoclavable Pipetter of Single Channel, 2-20 ul</b>	
			<i>with stainless steel ejector</i>	
			<i>volume in micro liter (range: 2 - 20)</i>	
			<i>increment: 0.02 micro liter</i>	
			<i>systematic error in micro liter (range: <math>\pm 0.1</math> to <math>\pm 0.2</math>)</i>	
			<i>random error in micro liter (range: <math>\leq 0.03</math> to <math>\leq 0.06</math>)</i>	
			<i>systematic error percentage (range: <math>\pm 5</math> to <math>\pm 1</math>)</i>	
			<i>random error in CV (range: <math>\leq 1.5</math> to <math>\leq 0.3</math>)</i>	
			<i>each pipette should be calibrated according to ISO 8655 standards</i>	
			<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>	
			<i>secure volume lock</i>	
			<i>five year warranty</i>	
20	unit	1	<b>Basic Bench pH meters with replaceable electrode and buffer</b>	

			☑Accuracy temperature: $\pm 0.3^{\circ}\text{C}$
			☑Accuracy pH: $\pm 0.1$
			☑Electrical requirements: AC/DC 9 V adapter (220 VAC, 60 Hz)
			☑Resolution (mV): 0.1 mV ( $\pm 199.9$ mV); 1 mV beyond $\pm 200$ mV
			☑Temp probe calibration: offset in $0.1^{\circ}\text{C}$ increments; offset range $\pm 5^{\circ}\text{C}$
			☑Range pH: 0 to 14
			☑Accuracy mV: $\pm 0.2$ mV ( $\pm 199.9$ mV), $\pm 2$ mV beyond $\pm 200$ mV
			☑Calibration points: 1 to 5 points with automatic buffer recognition (ABR)
			☑Include 13-620-AE6 3-in-1 single junction gel pH/ATC electrode
			☑Memory: 100 datasets
			☑Resolution temperature: $0.1^{\circ}\text{C}$
			☑Temperature compensation: automatic or manual (0 to $100^{\circ}\text{C}$ )
			☑Temperature range metric: 0.0 to $100.0^{\circ}\text{C}$
			☑Range mV: $\pm 1999$ mV
			☑Resolution pH: 0.01
			☑Power source: 220 - 240 50/60 Hz
			☑Warranty: 2-year meter warranty; 6-month electrode warranty
21	pcs	10	<b>Beaker, Glass, 150 mL</b>
			☑Low Form Beaker
			☑Borosilicate Glass
			☑Transparent Beaker
			☑Thickened With Spout
22	pcs	2	<b>Beaker, Glass, 2000mL, borosilicate glass</b>
23	btl	1	<b>Benzylaminopurine (BAP) suitable for plant cell and tissue culture (5g)</b>
24	btl	1	<b>Biotin, powder, BioReagent, suitable for plant cell and tissue culture (500mg)</b>
25	btl	1	<b>Boric acid (H<sub>3</sub>BO<sub>3</sub>) suitable for plant cell and tissue culture</b>
			molecular weight: 61.83
			500 grams
26	kgs	2	<b>Boric Acid, Analytical Reagent</b>
27	btl	1	<b>Bromocres of purple suitable for plant cell and tissue culture (5g)</b>
28	pc	1	<b>Brush for cleaning 250mL Erlenmeyer Flask</b>
			☑Bristle Color: White Bristle
			☑Brush+Handle Length: 12"
			☑Brush Diameter: 1 3/8"

			■Brush Length: 3 1/2"
			■Suitable for cleaning 250mL Erlenmeyer Flask
29	btls	3	<b>Calcium Chloride</b>
			■AR grade; 500g
30	btl	1	<b>Calcium Chloride (CaCl<sub>2</sub>) suitable for plant cell and tissue culture</b>
			Dried
			1.5-2.5mm
			Molecular Weight: 246.47
			500grams
31	set	1	<b>Camera V2 Module Light-sensitive Chips 8MP Pixel with IMX219 1080P Video Suppo</b>
			■Support infrared night vision function, can switch day and night mode, night vision picture clearer.
			■With high-definition camera quality, bring pure and exquisite picture quality experience, the image is clearer.
			■The day&night vision camera perfectly compatible for Raspberry Pi series 4B/3B+/3B/2B Model.
			■The product includes 1 piece night vision camera, 1 piece flex cable.
32	set	1	<b>Camera v2 Module, Official 8MP Night Vision IMX219 Sensor</b>
			■No IR filter
			■High-quality imagery
			■High data capability
			■8 megapixels fixed focus
			■Supports 1080p, 720p60 & VGA9
			■15-pin ribbon cable
			■Second Generation Raspberry Pi NoIR Camera Module with Fixed Focus Lens
			■Sony Exmor IMX219 Sensor Capable of 4K30, 1080P60, 720P180, 8MP Still
			■3280 (H) x 2464 (V) Active Pixel Count
			■Maximum of 1080P30 and 8MP Stills in Raspberry Pi Board
			■2A Power Supply Highly Recommended
33	btl	1	<b>Casein hydrolyzate for tissue culture suitable for plant cell and tissue culture (100g)</b>
34	btl	1	<b>Cobalt chloride (CoCl<sub>2</sub>, 6H<sub>2</sub>O) suitable for plant cell and tissue culture</b>
			Molecular weight: 249.68
			500g
35	btl	1	<b>Colchicine suitable for plant cell and tissue culture (1g)</b>
36	btls	4	<b>Copper sulfate, CuSO<sub>4</sub></b>

			☐Anhydrous, Analytical reagent grade, 500g/bottle
37	pack	1	<b>Copper Sulphate, 500 grams/pack</b>
38	btl	1	<b>Cupric sulfate (CuSO<sub>4</sub>, 5H<sub>2</sub>O) suitable for plant cell and tissue culture (500g)</b>
39	btl	1	<b>D-Calcium panthothenate suitable for plant cell and tissue culture (100g)</b>
40	sets	5	<b>Digital Smart Temperature Controller K Thermocouple Thermostat</b>
			☐Item Name: Intelligent Thermostat
			☐Material: ABS
			☐Working Voltage: 220VAC, 50Hz/60Hz
			☐Temperature Control Accuracy: 1.0 Control Method PID Control and Self-tuning Control
			☐Working Environment: 0~50 Degree Celsius
			☐Relative Humidity: 30 Percent~85 Percent RH
			☐Input Mode: K/E/J/R/S/B/N/T/PT100/CU500 Adjustable
			☐Output Mode: Relay
			☐Features: Convenient to Use, Fine Workmanship, Durable
			☐Size:48 x 48 x 107mm/1.89" x 1.89" x 4.21" (Approx.)
			☐Panel Size: 48 x 48mm/1.89" x 1.89" (Approx.)
			☐Hole Size: 45 x 45mm/1.77" x 1.77" (Approx.)
			☐Blue water container
41	btl	1	<b>EMS (Ethyl methanesulfonate) for plant genetic studies (10g)</b>
42	pcs	20	<b>Erlenmeyer Flask, Glass, 250mL</b>
			☐Material: Borosilicate Glass
			☐Good Quality
43	pcs	20	<b>Erlenmeyer Flask, Glass, 500ml</b>
			☐Material: Borosilicate Glass
			☐Good Quality
44	btl	1	<b>Ethylenediaminetetraacetic acid disodium salt (Na<sub>2</sub>-EDTA) suitable for plant cell and tissue culture(500g)</b>
45	sets	5	<b>Exhaust Gas Temp Sensor 2m EGT K Type Thermocouple Probe Exhaust Temperature Sensors Threads Exhaust</b>
46	set	1	<b>FCI-INGAAS-1000 IR InGaAs Photodiode, Through Hole TO-46, TO-5</b>
			☐Spectrum Detected: Infrared
			☐Package type: TO-46, TO-5
			☐Mounting Type: Through hole
			☐Number of Pins: 2
			☐Diode Material: InGaAs

			☐ <i>Minimum wavelength Detected: 900nm</i>	
			☐ <i>Maximum wavelength Detected: 1700nm</i>	
47	btl	1	<b>Ferrous sulfate (FeSO<sub>4</sub>, 7H<sub>2</sub>O) suitable for plant cell and tissue culture</b>	
48	btls	8	<b>Ferrous Sulphate</b>	
			☐ <i>Analytical Grade</i>	
			☐ <i>500 G</i>	
49	gms	1	<b>Gellan Gum, Agar substitute gelling agent suitable for plant cell and tissue culture (250g)</b>	
50	boxes	7	<b>Gloves, Nitrile, Large</b>	
			☐ <i>Glove Type: Chemical Resistant Disposable Gloves</i>	
			☐ <i>Glove Material: Nitrile</i>	
			☐ <i>Powder-Free</i>	
			☐ <i>1 box of 100 or 50 pairs</i>	
			☐ <i>Food Safe</i>	
			☐ <i>Size: large</i>	
51	boxes	2	<b>Gloves, Nitrile, Medium</b>	
			☐ <i>Glove Type: Chemical Resistant Disposable Gloves</i>	
			☐ <i>Glove Material: Nitrile</i>	
			☐ <i>Powder-Free</i>	
			☐ <i>1 box of 100 or 50 pairs</i>	
			☐ <i>Food Safe</i>	
			☐ <i>Size: Medium</i>	
52	pack	1	<b>Grade 1 Qualitative Filter Paper, Diameter: 12.5cm, Pore Size: 11µm, at least 100 pcs./pack</b>	
53	btl	1	<b>Indoleacetic acid (IAA) suitable for plant cell and tissue culture (5g)</b>	
54	pcs	4	<b>Lab Gown Long Sleeves L</b>	
			☐ <i>Lab Coat High-quality White</i>	
			☐ <i>Size- Large; long sleeves</i>	
55	boxes	2	<b>Latex Disposable Gloves Powder Free (Medium), 100 pcs. or 50 pairs per box</b>	
56	btl	1	<b>L-Proline (pure grade), 500g</b>	
			☐ <i>L-Proline (pure grade; solid 500g)</i>	
			☐ <i>Assay: ≥99%</i>	
			☐ <i>White crystals</i>	
57	btl	1	<b>Magnesium Sulphate (MgSO<sub>4</sub>.7H<sub>2</sub>O) suitable for plant cell and tissue culture</b>	
			<i>Wt. 169.01</i>	
			<i>Colourless efflorescent crystals</i>	
			<i>500 grams</i>	
58	btl	1	<b>Manganese sulfate (MnSO<sub>4</sub>, H<sub>2</sub>O) suitable for plant cell and tissue culture (500g)</b>	
59	btl	1	<b>Methyl orange, Sodium salt</b>	

			☐CAS 547-58-0
			☐25g
			☐Orange Solid, Crystalline
			☐Analytical Grade
60	pcs	1	<b>Microscope Slides and cover slips</b>
			☐Pre-Cleaned Blank slides with 100 22 x 22 mm square Cover Slip
61	box	1	<b>Microscope Slides and Square Cover Glass</b>
			☐100pc pre-cleaned blank microscope glass slides with ground edges plus 100 piece 22x22mm square glass cover slips.
			☐Slide dimensions - 1" x 3" (25.4x76.2mm) with ground edges.
			☐Cover slips are 7/8 x 7/8" (22x22mm) and 0.006" (0.13-0.17mm) in thickness.
62	btl	1	<b>Molybdic acid (sodium salt) (Na<sub>2</sub>MoO<sub>4</sub>, 2H<sub>2</sub>O) suitable for plant cell and tissue culture ( 500grams, AR)</b>
63	set	1	<b>Multifunctional LCD Digital Multimeter DMM DC AC Voltage Current Resi</b>
			☐Maximum display: 4000
			☐Operational temperature: 0-40°C, <75%
			☐RH Storage temperature: -20-60°C, <80% RH
			☐Power supply: 3V (2 * 1.5V)
			☐AAA battery (Not included) Power consumption: 4.5mW (Typical)
			☐DC voltage: 400.0mV/4.000V/40.00V/400.0V/600V DC
			☐voltage resolution: 0.1mV/1mV/10mV/100mV/1V
			☐AC voltage (RMS): 400.0mV/4.000V/40.00V/400.0V/600V
			☐AC voltage resolution: 0.1mV/1mV/10mV/100mV/1V
			☐DC current: 40.00mA/400.0mA/10.00A
			☐DC current resolution: 10µA/100µA/10mA
			☐AC current (RMS): 40.00mA/400.0mA/10.00A
			☐AC current resolution: 10µA/100µA/10mA
			☐Resistance: 400.0Ω/4.000kΩ/40.00kΩ/400.0kΩ/4.000MΩ/ 40.00MΩ
			☐Resistance resolution: 0.1Ω/1Ω/10Ω/100Ω/1kΩ/10kΩ
			☐Capacitance: 4.000nF/40.00nF/400.0nF/4.000µF/40.00µF/2 00µF
			☐Capacitance resolution: 1pF/10pF/1nF/10nF/100nF/1000nF



			<p>Frequency: 99.5Hz/999.5Hz/9.999kHz/99.99kHz/999.9kHz/9.999MHz Frequency resolution: 0.5Hz/0.5Hz/1Hz/10Hz/100Hz/1kHz</p>
			Duty cycle: 0.1% to 99.9%
			Item size: 130 * 65 * 32mm / 5.1 * 2.56 * 1.26in
			Item weight: 114.5g / 4.0oz
			Package weight: 224g / 7.9oz
			Package size: 16 * 8 * 5cm / 6.3 * 3.15 * 1.97in
			Package List: 1 * Multimeter 1 * Pair of test leads 1 * English user manual 1 * Carrying bag
64	btl	1	<b>Myo-inositol suitable for plant cell and tissue culture (100gms)</b>
65	set	1	<b>Nano Engraving Transmission Diffraction Grating Teaching, wavelength range:2</b>
			Size: 20 x 20mm
			Material: Glass
			Structure: Diffraction Grating
			wavelength range: 200nm – 10,000nm
66	btl	1	<b>Nicotinic acid suitable for plant cell and tissue culture (100g)</b>
67	btl	1	<b>Ninhydrin (1,2,3 -Indanetrione monohydrate), 50g</b>
			CAS 485-47-2
			White solid
			50g
			Analytical Grade
68	btl	1	<b>Peptone</b>
			500g for bacteriological work
69	gallon	1	<b>Petroleum Ether, AR</b>
70	kls	6	<b>Phytigel, Sigma (Should be Sigma for Protocol)</b>
			Chemical must be plant tissue culture tested for at least 20 years
			ISO complaint
			ACS REAG
			PH EUR
			meets USP standards
			Bio reagents suitable for cell culture
71	set	1	<b>Portable Moisture Tester for Grain with Digital Meter Readout, Grain Tester with Carry Case</b>
			Specification:
			Backlit display for nighttime use
			Built-in calibration button for displaying the average of saved test results
			Multi-language display

			<i>Higher-frequency, capacitive circuit improves accuracy</i>
			<i>Moisture range: 5% to 40% depending on grain tested</i>
			<i>Temperature range: 32° to 113°F (0° to 45°C)</i>
			<i>Repeatability &amp; Accuracy: ± 0.5% in normal moisture range for stored grain</i>
			<i>Single-point or Precision multi-point calibration to match local elevator</i>
			<i>Direct readout for 40 different grain scales</i>
			<i>Case color: Black</i>
			<i>Material: Plastic</i>
			<i>Power source: Battery-powered</i>
			<i>Voltage: 9 Volts</i>
			<i>Certification: certified frustration-free</i>
			<i>Battery included: yes</i>
			<i>Includes Protective carrying case with shoulder strap</i>
			<i>with warranty</i>
72	btl	1	<b>Potassium Antimony Tartrate (III) Hydrate, AR</b>
73	kgs	4	<b>Potassium Chloride</b>
			☐Chemical must be plant tissue culture tested for at least 20 years
			☐ISO complaint
			☐ACS REAG
			☐PH EUR
			☐meets USP Standards
			☐Bioreagent suitable for cell culture
74	btls	3	<b>Potassium Dichromate, AR Grade</b>
			☐500 grams/poly bottle
75	btl	1	<b>Potassium iodide (KI) suitable for plant cell and tissue culture</b>
			<i>Molecular weight 166</i>
			<i>500 grams</i>
76	kgs	1	<b>Potassium Nitrate (KNO3) suitable for plant cell and tissue culture</b>
			<i>1 kilogram of Potassium Nitrate</i>
77	btl	1	<b>Potassium Phosphate (KH2PO4) suitable for plant cell and tissue culture (500g)</b>
78	btl	1	<b>Pyridoxine.HCl suitable for plant cell and tissue culture(25g)</b>
79	packs	5	<b>Resealable Plastic Bag, Large</b>
			☐resealable pastic bag, zip lock, 340 mm x 450 mm (13" x 18"), 100 pcs per pack
80	set	1	<b>Serial Basic Breakout - CH340G</b>
			☐It works with 5V and 3.3V systems
			☐USB-to-Serial adapter

81	btls	10	<b>Sodium Hydroxide, AR 500G</b>
			■500 g/bottle, AR, Pellets
82	packs	30	<b>Sodium Hydroxide, Technical grade, 1kg/pack</b>
83	sets	4	<b>soil temperature and humidity probe / waterproof I2C temperature and humidity sensor module te</b>
			■Power supply voltage: 2.4~5.5VDC
			■Measurement accuracy: temperature $\pm 0.1^{\circ}\text{C}$ , humidity plus or minus 1.5%RH
			■Working test range: $-40^{\circ}\text{C}\sim 125^{\circ}\text{C}$ , 0%RH~100%RH
			■Resolution: $0.1^{\circ}\text{C}$ , 0.1%RH
			■Communication protocol: standard I2C protocol
			■Line length: 1M
			■Wiring method: VCC-red, GND-black, SLC-yellow, SDA-green
84	pc	1	<b>Stainless Steel Crucible Tongs</b>
			■25 cm
			■Stainless Steel
85	pcs	2	<b>Stainless Steel Laboratory Microspatula</b>
86	btl	1	<b>Standard Method Agar (PCA)</b>
			Plate Count Agar
			500g
87	pc	1	<b>Stirring Rod</b>
			■big size, $\geq 10$ inches long, fire polished ends with no policeman
88	btl	1	<b>Thiamine.HCl suitable for plant cell and tissue culture (25gms)</b>
89	btl	1	<b>Toluene</b>
			■(CAS 108-88-3)
			■2.5 liters,
			■Analytical Grade
			■99.5%,
90	set	1	<b>Triad Spectroscopy Sensor - AS7265x (Qwiic) (SPARKFUN)</b>
			■Selectable interface: I2C or Serial (115200bps)
			■18 frequencies of light sensing from 410nm to 940nm
			■28.6 nW/cm <sup>2</sup> per count
			■Accuracy of +/- 12%
			■Integrated 405nm UV, 5700k White, and 875nm IR LEDs
			■Software control over each illumination LED as well as current control
			■Optional external bulb or illumination control
			■Programmed with latest firmware from AMS

91	pairs	6	<b>Utility Gloves, Rubber, Large, Non-Sterile</b>	
92	pc	1	<b>Wide Mini-Sub Cell Horizontal Electrophoresis System</b>	
			<i>Base footprint (LxWxH): 25.5x17.8x6.8cm</i>	
			<i>Base buffer volume: 650-900ML</i>	
			<i>Base Gel size: 15x7cm</i>	
			<i>Tray sizes: 15x10 cm</i>	
			<i>Base: Molded clear plastic</i>	
			<i>Gel Casting gates: Aluminum</i>	
			<i>Safety Lids: Molded clear Plastic</i>	
			<i>Electrode wire guard: Molded polycarbonate</i>	
			<i>Banana Plugs: Gold-plated brass, 4.4cm length</i>	
			<i>Electrode: Platinum, 0.25mm diameter</i>	
			<i>Electrical cables: Dual, 20AWG, tinned copper wire cable, Flame-retardant polyurethane insulation jacket</i>	
			<i>Electrical leads: Nickel-silver</i>	
			<i>Gel Tray: UV- transparent acrylic plastic (UVTP)</i>	
			<i>Combs: Molded plastic and machined acrylic</i>	
			<i>Gel casting device: polycarbonate 0.64 cm silicon foam</i>	
			<i>Input power: Nominal= 220–240 VAC, 50–60 Hz; 700 W maximum</i>	
			<i>with power supply</i>	
			<i>Actual = 90-132 or 198-264 VAC, 50-60-Hz</i>	
			<i>Fuses: 2.5 A, 250VAC, 5mmx20mm. Type T</i>	
			<i>Input power cord: 3-wired; grounded</i>	
			<i>Output (programmable)</i>	
			<i>Voltage: 10V to 300V, fully adjustable in 1 V steps</i>	
			<i>Voltage accuracy: ±2% of reading or 3 volts, whichever is more</i>	
			<i>Current: 4mA to 400mA, fully adjusted in 1 mA steps</i>	
			<i>Current accuracy: ±2% of reading or 3mA, whichever is more</i>	
			<i>Power(maximum): 75W</i>	
			<i>Terminals: 4-pair recessed banana jack, floating parallel</i>	
			<i>Timer Control: 001-999 minutes, fully adjustable</i>	
			<i>Ripple: 1% @300 V and 70W</i>	
			<i>Line Regulation: 1% @300 V and 70W, 90-132 or 198-264 VAC</i>	
			<i>Load Regulation: 1% @300 V for 50% change in output load</i>	
			<i>Drift: 1% @ after 15mins warm up at 300V and 70W</i>	
			<i>Noise: 55dBA at 1 meter</i>	
			<i>Readout stability: Volts= ± V; Current: ±1Ma</i>	

			Auto power up after power failure: User selectable, setup values maintained
			Safety compliance: EN-61010
			EMI: Conforms to CE standard for emissions and immunity Class A, testes only at 230 V
			Display function: 3-digit LED display, voltage, current or time
			Function Modes: Constant voltage, constant current, timer, pause, user selectable
			Automatic power up after power failure
			Envi: Operating Tem (40°C); Humidity (0-95%, in the absence of condensation)
			Dimensions (W x D x H): 25 x 21 x 8.5 cm
			unit is stackable
			Inclusions: Lid with Cables, 15cm x 10cm (WxL) UV transparent tray, Leveling bubble, 15-well comb, fixed height, 1.5 mm thickness, 20-well comb, fixed height, 1.5 mm thickness, Gel caster, PowerPac Basic Power Supply
93	btl	1	<b>Zinc sulfate (ZnSO<sub>4</sub>, 7H<sub>2</sub>O) suitable for plant cell and tissue culture</b>
			molecular weight: 287.54
			500grams
94	packs	30	<b>1.8 mL Cryotubes</b>
			■ 1.8ml freezing tube
			■ Material: Plastic
			■ Color: clear with orange caps
			■ Packaging: 10pcs/pack
			■ Purpose: Multifunctional cryotubes
95	packs	4	<b>1-5 mL Pipette Tips</b>
			■ 5000 uL (5ml) pipette tips
			■ Diameter of inner tube: 13 mm
			■ Available in bulk packs.
			■ Virgin polypropylene.
			■ Autoclavable
			■ Color: Natural
			■ Package: 300pcs/pack
			■ 1000-5000uL (1-5mL) capacity
96	units	3	<b>5 ml Pipette Rectangle Pipette Tip Box</b>
			■ Material: Plastic, autoclavable
			■ 28 Positions
			■ Fit for 5ml pipettor tips
			■ Each hole diameter : 11mm/0.43"
			■ Total size: 12 x 9.3 x 16 cm/4.72" x 3.66" x 6.3" (LxWxH).
			■ Weight: 148g
			■ Empty box, not including tips
97	packs	3	<b>5ml Plastic Centrifuge - Microtubes/Vials</b>

			☐Specifications:
			◀Scale: 5ml (Permissible error 0.1 ml)
			◀Length: 63mm / outer diameter: 15mm
			◀Material: PP
			◀Type: Disposable
			◀Withstand temperature range: -80 ? + 121 degrees C
			◀Autoclavable: 121 degree C.
			◀Highest speed: 12000 r/min, continuous work for 15 minutes
			◀Benefits: Smooth side walls, good transparency, good sealing lid, the sample is not volatile, convenient printing scale experimental measurement.
			◀Package include: 30 x 5ml plastic centrifuge test tube vial container
98	unit	1	<b>Constant Temperature Incubator</b>
			☐Capacity: 50L
			☐TEMP RANGE: RT+5-65°C
			☐TEMP PRECISION: 0.1 °C
			☐Features:
			☐LCD display
			☐Microprocessor temperature controller
			☐The working chamber adopts round angle structure, easy to clean.
			☐Double door design and magnetic door sealing.
			☐Water-jacket function which helps to keep long time temperature upon power off.
			☐Water overflow protection
			☐Safety function:
			☐Over temperature protection, temperature sensor malfunction alarm.
			☐Parameters can be saved automatically when power off or system error.
			☐High and low water level alarm, automatic heating off for low water level.
99	unit	1	<b>Horizontal Benchtop Autoclave Steam Sterilizer</b>
			☐Horizontal Benchtop Autoclave Steam Sterilizer, 24 L
			☐Specifications:
			☐Chamber Capacity: 26x46cm
			☐Inside Capacity: 24.41L
			☐Sterilize Temperature: 126 deg. celsius (highest)
			☐Sterilize Pressure: 1.5kg/cm <sup>3</sup> (highest)
			☐Sterilize Time: 35 minutes
			☐Heater: 1500W


			☐Material Quality: Stainless Steel SUS No. 304, Boiler chamber surface with burnish
			☐Electric Current: 220V 7A9A
			☐Safety Equipment: Double pressure adjustment, adjust the inner pressure, if over standard value automatic vent
100	pc	1	<b>Laboratory Stool/Chair, Wheeled</b>
			Anti-static stool
			Adjustable height: at least 40-60 cm
			Weight capacity: at least 300lbs
			Ergonomic with hip to mid-waist level back support
			With round footrest/ foot ring
			Anti-slip seat material: Rugged polyurethane
			No. of wheels: 5
			Standard style w/polished aluminum base: 20"-30"
			Seat shape: Round
			Color: Black
101	set	1	<b>Manual Ball Sealer for Semen Straws, 0.5mL Set</b>
			☐Used for sealing individual 0.5ml semen straws.
			☐Includes:
			◀ Sealing ball, glass, for 0.5 ml straws, black (REF: 13400/1000) - 1 pack for 1000 pcs
			◀ Sealing ball, metal, for 0.5 ml straws (REF: 13400/9900) - 2 packs for 2000 pcs
			◀ EcoStraw, 0.5 ml, transparent grey (REF: 13408/3074) - 1 pack for 2500pcs
			◀ 1 MiniCutter for semen straws (REF: 17062/0010)
102	unit	1	<b>Micro Centrifuge Ventilated (Ambient)</b>
			☐Angle rotor 24 x 1.5 ml / 2.0 ml, with standard cover
			☐Angle of rotor: 45°
			☐Max. speed: 15000 rpm
			☐Max. RCF: 21380 x g
			☐Construction:
			☐Weight without rotor: at most 35 kg (77 lbs)
			☐The centrifuge's main body shall be constructed from electrogalvanized steel; chamber construction is plastic ABS (Acrylonitrile butadiene styrene).
			☐External surfaces are powder coated with Isocide™ antimicrobial coating on all painted surfaces to inhibit bacterial growth.
			☐Power requirements:
			☐The centrifuge shall work on 230 V AC, 50/60 Hz
			☐Performance:

			☐RCF range: 10-21380 x g	
			☐Speed range: 200-15000 rpmM	
			☐Maximum volume: 44 x 1.5/2.0 ml; 4 x 8 PCR strips; 24 capillaries	
			☐Number of rotor options: 7	
			☐Temperature control range: Ambient	
			☐Time set range: 99 hrs 59 mins / 59 min 50 s in 1min / 10s increments / continuous	
			☐Maintenance-free, brushless motor	
			☐Equipped with German-originated motor, requiring neither bearing replacement nor change oil.	
			☐No carbon brush, low interference to radio equipment.	
			☐Aerosol-tight rotor	
			☐High-quality, extremely robust aluminum lid rotor for aerosol-tight centrifugation	
			☐All rotor, buckets, lids, and adapters are autoclavable (20 min, 121°C).	
			☐V-balance™ weight imbalance protection	
			☐Automatic imbalance recognition that allows the rotor to decelerate and stop.	
			☐Genuine-Protex™ safety lid design	
			☐Safety lid with motor-driven design, provides a real safe protection for misoperation.	
			☐Large storage space	
			☐Allow the users to edit and store up to 99 programs with speed, centrifugal force, running time, temperature, and acceleration or deceleration rate, and rotor code.	
			☐Automatic conversion between RPM and RCF	
			☐Adjustable acceleration / deceleration control system- Offer 10 different types of acceleration / deceleration rate options. Both 0-9 options on acceleration/deceleration.	
			☐Alarm system- Audible and visual alarms are activated during system failure. There are total of 10 alarm sounds available.	
			☐Overspeed protection (OSP)	
			☐Over-temperature protection (OTP)	
			☐Various operation mode- Three types of spin mode: short spin for short running, continuous spin and time-setting spin can be chosen to suit various applications.	
			☐Real-time modification of parameter - The parameters like rotary speed, RCF, running time, and temperature can be adjusted during the operation to improve your working efficiency.	
			☐Controller:	



			<ul style="list-style-type: none"> <li>Microprocessor control system - Big rotary knob and buttons, convenient for rotation and operation and large LCD screen with clear indication of running condition including rotor, speed, time etc.</li> </ul>
			<ul style="list-style-type: none"> <li>Operation panel is water-proof which can well protect the inner electric parts.</li> </ul>
			<ul style="list-style-type: none"> <li>An error message is displayed on LCD for troubleshooting and an audible alarm is activated during system failure.</li> </ul>
103	unit	1	<b>Microwave Oven, 30L</b>
			<ul style="list-style-type: none"> <li>30 Liters Microwave Oven</li> </ul>
			<ul style="list-style-type: none"> <li>Quick Defrost</li> </ul>
			<ul style="list-style-type: none"> <li>Push Bottom + Knob + Digital</li> </ul>
			<ul style="list-style-type: none"> <li>Automatic Programmes</li> </ul>
			<ul style="list-style-type: none"> <li>5 Power Levels</li> </ul>
			<ul style="list-style-type: none"> <li>LED White Color</li> </ul>
			<ul style="list-style-type: none"> <li>Turntable Size: 315mm</li> </ul>
			<ul style="list-style-type: none"> <li>Voltage: 230V</li> </ul>
			<ul style="list-style-type: none"> <li>Frequency: 60Hz</li> </ul>
			<ul style="list-style-type: none"> <li>Microwave Power: 100W</li> </ul>
104	packs	10	<b>PET Seal Bottles/Reagent Vials</b>
			<ul style="list-style-type: none"> <li>EREMY1 Portable Bottle Container PET Seal Bottles Spray Bottle Pill Container Powder Container Reagent Vials Plastic Chemical Container</li> </ul>
			<ul style="list-style-type: none"> <li>Color: Clear</li> </ul>
			<ul style="list-style-type: none"> <li>Quantity: 10pcs/pack</li> </ul>
			<ul style="list-style-type: none"> <li>Type: Refillable Bottles: 15ml, 20ml, 30ml, 60ml</li> </ul>
105	set	1	<b>Pipettor Set - Volumetric Pipette Controller and Miropipette Pipettors Complete</b>
			<ul style="list-style-type: none"> <li>1- Electronic pipette controller - 0.1-200mL range; battery pack: Lithium battery 2.4V; pipetting speed: 50ml in less than 10 seconds; for glass and plastic pipettes from 0.1-200ml; includes assorted reusable/autoclavable glass pipettes 10-50mL capacity</li> </ul>
			<ul style="list-style-type: none"> <li>4- Micropipette set - fully autoclavable; volumes: 2uL-20uL, 10uL-100uL, 100uL-1000uL, 500uL-5000uL; color-coded push buttons for each volume; includes carousel stand</li> </ul>
106	set	1	<b>Plastic Dredge Reagent Bottles</b>
			<ul style="list-style-type: none"> <li>Made of PE material for durable and practical to use.</li> </ul>
			<ul style="list-style-type: none"> <li>250ml capacity</li> </ul>
			<ul style="list-style-type: none"> <li>Color: white with blue cap</li> </ul>
			<ul style="list-style-type: none"> <li>Size: About 11.00 x 7.00 x 5.00cm/4.32 x 2.75 x 1.97 inch.</li> </ul>

			☐The product is light and compact, easy to use and portable to carry.	
			☐Package Includes: 10 x bottles	
107	packs	2	<b>Rectangle Microscope Glass Slide Holder Box</b>	
			☐Microscope 5-Slide Box	
			☐Material : Plastic	
			☐Each Box Can Hold 5 pieces of microscope slides	
			☐Box Size : 8.7 x 2.8 x 1.9cm	
			☐Fit Slide Size : 7.8x 2.6cm	
			☐Package Weight : 100g	
			☐Package : 10 x Microscope Slide Box	
108	units	5	<b>Stainless Steel Thermal Insulated Flask</b>	
			☐Thermal Cup Specifications:	
			☐Keeps warm and cold, can be filled with water to keep warm	
			☐Sealed and leak-proof, heat insulation and scalding	
			☐Hook and handle- easy to take	
			☐500 mL Portable Stainless Steel Food Thermal Insulated Container	
			☐Leakproof Thermal Cup Vacuum Flasks	
			☐Material: 304 stainless steel+PP+PS+silicone	
			☐Size: 15*9.6cm	
			☐Color: yellow/blue/red	
109	packs	10	<b>Sterile Speciment/Reagent Cup with Lid</b>	
			☐Sterile speciment/reagent cup with lid	
			☐60ml capacity with built in plastic spoon	
			☐leak free	
			☐6 pieces/pack	
			<b>Rebidding(GOODS-21-52)</b>	
110	pack	1	<b>1X Dulbecco's Modified Eagle Medium (DMEM)</b>	
			For cell culture: mammalian suitable	
			Components: 4.5g/L D-Glucose, L-glutamine, 110mg/L Sodium pyruvate	
			Pack of 10 bottles, 500mL per bottle	
			Sterile filtered	
111	boxes	3	<b>3 layer Non-woven surgical face mask, at least 50 pcs. per box</b>	
			3 layer Non-woven surgical face mask	
112	packs	3	<b>5000 ul pipette tips (Neutral), at least 1000 pcs. per pack</b>	
			☐5000 ul pipette tips (Neutral)	
113	pack	1	<b>Activated Acid-washed Charcoal</b>	
			☐Chemical must be plant tissue culture tested for at least 20 years	

			☑ISO complaint
			☑ACS REAG
			☑PH EUR
			☑meets USP Standards
			☑Bioreagent suitable for cell culture
			☑2.5kg per pack
114	pack	1	<b>Blot Filter paper, at least 8.6 x 13.5 cm</b>
			☑Material: Filter paper from 100% cotton fiber
			☑For blotting applications as part of the gel, membrane, and filter paper stack, or sandwich
			☑Dimension: at least 8.6 x 13.5 cm
			☑Pack of at least 50 sheets
115	boxes	14	<b>Filter Paper, 12.5 cm. Ashless #42 or equivalent</b>
			Pore size:2.5µm
			at least 100 pcs. per box
116	packs	2	<b>Grade 1 Qualitative Filter Paper, Diameter: 12.5cm, Pore Size: 11µm, at least 100 pcs./pack</b>
			☑Grade 1 Qualitative Filter Paper, Diameter: 12.5cm, Pore Size: 11µm
117	boxes	20	<b>Ice Box Cooler, 110 Liters</b>
			Plastic Cooler Box 110 Liters, 100 kg capacity L-69 x W-49 x H-56 cm with drain system 72 hours insulation time UV resistant Impact resistant Food grade; Color: Blue
			
118	pcs	2	<b>Lab Gown Long Sleeves M</b>
			☑Lab Coat High-quality White
			☑Long Sleeves
			☑Medium size
119	pc	1	<b>Laboratory Hot Plate Magnetic Stirrer</b>
			• Max. heating temperature is 380°C
			• High resolution LCD displays actual temperature and speed
			• Brushless DC motor is maintenance free
			• Aluminum cover with ceramic work plate, allows for immediate heat transfer
			• External temperature control is possible with temperature sensor PT1000
			• Digital temperature control with max. temperature at 380°C
			• Digital speed control with max. speed up to

			1500rpm
			• Max. stirring quantity of H2O at 5L
			Work plate Dimension: 140x140mm
			Work plate material: Aluminum cover with ceramic coating
			Motor type: Brushless DC motor
			Motor rating input: 2.4W
			Motor rating output: 1.8W
			Power: 510W
			Heating output: 500W
			Voltage: 100-120/200-240V 50/60Hz
			Stirring positions: 1
			Max. stirring quantity[H2O]: 5L
			Max. magnetic bar[length]: 50mm
			Speed range: 200-1500rpm
			Speed display: LCD
			Temperature display: LCD
			Heating temperature range: Room temp.+5°C - 380°C
			Over heat Protection: 420°C
			Temperature display accuracy: ±0.1°C
			External temperature sensor: PT1000 (accuracy ±0.5°C)
			Control accuracy of sensor: ±20rpm
			Protection class: IP21
			Dimension [W x D x H]: 320x180x108mm
			Weight: 2.2kg
			Permissible ambient temperature and humidity: 5-40°C 80%RH
120	boxes	2	<b>Laboratory Weighing Boats</b>
			<i>Plastic, 100 mL;</i>
			at least 100 pcs. per box
121	packs	5	<b>Resealable Plastic Bag, Large</b>
			<i>resealable plastic bag, zip lock, 340 mm x 450 mm (13" x 18"), 100 pcs per pack</i>
122	packs	7	<b>Resealable Plastic Bag, Medium</b>
			<i>resealable plastic bag, zip lock, 140 mm x 200 mm (5 1/2" x 7 1/2"), 100 pcs per pack;</i>
123	btls	2	<b>Reversible Protein Stain Kit for PVDF Membranes</b>
			<i>Molecular biology grade Colorimetric in-blot detection method Contains sensitizer, reversible stain, destaining agent, and stain eraser Sufficient for at least 10 PVDF membranes from mini gels Kit for at least 10 PVDF membranes, Bottle of 1.75L ;</i>
124	pcs	110	<b>Stainless Steel Trays, for Laboratory Use</b>
			<i>(L 36 cm x W 27 cm); (Depth 6.5 cm);</i>
125	btls	170	<b>Sterile Water for Injection, 100ml per bottle</b>

			<i>Other Specification:; Parental Sterile Non-Pyrogenic Diluent;</i>	
126	boxes	10	<b>Gloves, Nitrile, Large</b>	
			☐Glove Type: Chemical Resistant Disposable Gloves	
			☐Glove Material: Nitrile	
			☐Powder-Free	
			☐1 box of 100 or 50 pairs	
			☐Food Safe	
			☐Size: large	
127	pcs	2	<b>Laboratory Glass Dyeing Cylinder Rack with Cover (Circular)</b>	
			☐with cover	
			☐5 circular	
128	packs	3	<b>Sterile Syringe Filters Nylon 25 mm Diameter 0.45 um Pore Size Individually Packaged 10/pk</b>	
129	boxes	15	<b>Styrofoam Box Z1</b>	
			☐8..5 x 8.5 x 6.75 inches	
130	packs	3	<b>Herbarium Mounting Paper</b>	
			<i>Desired product: Carolina Biological Supply Herbarium Mounting Paper</i>	
			<i>Specifications:</i>	
			<i>Acid-free: Yes</i>	
			<i>Size (LxW) : 11-1/2 x 16-1/2".</i>	
			<i>Thickness: 188 mm</i>	
131	packs	2	<b>Microcentrifuge</b>	
			<i>Desired product: Eppendorf Tube® 5.0 mL (EP-00301)</i>	
			<i>Specifications:</i>	
			<i>Cap Type: Snap Cap</i>	
			<i>Capacity: 5.0 milliliters</i>	
			<i>Length: 54 millimeters</i>	
			<i>Material: Polypropylene (PP)</i>	
			<i>Autoclavable: Yes</i>	
			<i>Temp range: +121 °C to -196 °C.</i>	
			<i>Color: clear</i>	
132	pcs	5	<b>Temperature-Humidity Data Logger</b>	
			☐Portable and hand-held	
			☐16000 data recording capacity.	
			☐Adjustable record interval: 10s~24hour	
			☐Multi-function LCD	
			☐Internal NTC temperature thermal sensor with optional external sensor	
			☐Data export in PDF/EXCEL via data management software	
			☐Selectable °F/°C temperature unit	
			☐Size: approx. 84 (L) x 44(W) x 20 (H) mm	

			☑ Good quality
			☑ Durable
133	unit	1	<b>Portable Oxygen Monitor</b>
			☑ Personal single gas monitor designed for protection in workspaces where liquid nitrogen is used.
			☑ Portable/pocket size
			☑ Lightweight
			☑ IP-67 waterproof rating
			☑ Audible/visual/vibration alarms
			☑ Automatic backlight
			<b>Rebidding (GOODS-22-08)</b>
134	btl	1	<b>L-Glutamine, ≥99% (HPLC), 100g</b>
			☑ ≥99% (HPLC grade)
			☑ 100g per bottle
135	btl	1	<b>6-Benzylaminopurine, 5g/btl</b>
			☑ suitable for plant cell culture
136	btl	1	<b>D-Pantothenic acid hemicalcium salt, 5g</b>
137	gallons	2	<b>95% Ethyl Alcohol, Technical Grade (Gallon)</b>
138	Kilo	1	<b>Agar Agar</b>
139	pcs	3	<b>Stirring Rod</b>
			☑ big size, 10 inches long
			☑ fire polished ends with no policeman
140	btls	6	<b>Barfoed's Reagent Solution 1000mL</b>
			☑ Technical Reagent Grade
			☑ 1000mL per bottle
141	liters	4	<b>Glycerine</b>
			☑ Glycerine Technical Grade
			☑ 1L/bot.
142	btl	1	<b>Canada Balsam, for microscopy, 100ml</b>
143	pcs	6	<b>Coplin Jar with cover</b>
			Specification:
			Internal Width (in) 1 11/64
			Internal Height (in) 2 61/64
			Internal Depth (in) 1 11/64
			Internal Width (cm) 3
			Internal Height (cm) 7.5
			Internal Depth (cm) 3
144	btl	1	<b>Safranin O Solution</b>
			☑ 250ml
145	canisters	2	<b>Ethyl Alcohol (95%)</b>
			Container size: Plastic waterjug (20L)
146	pack	1	<b>Proteinase K</b>
			Molecular biology grade, DNase-Free, RNase-Free
			For general digestion of proteins

			Lyophilized form	
			Pack of at least 100mg with appropriate buffer	
147	btl	1	<b>Sodium dodecyl sulfate (SDS)</b>	
			☐Molecular biology grade, at least ≥99.0% assay quality	
			☐Suitable for protein analysis and electrophoresis	
			☐Dnase-free and Rnase-free	
			☐Phosphatase-free and proteases-free	
			☐Bottle of at least 500g	
148	kls	2	<b>Ammonium Nitrate</b>	
			☐AR grade; at least 98% purity	
			☐Molecular Wt. 80.043 grams per mol.	
			☐1kg/pack	
149	packs	2	<b>Mannitol (AR)</b>	
			Formula: C <sub>6</sub> H <sub>14</sub> O <sub>6</sub>	
			Molecular Wt. 182.172g/mol.	
150	packs	2	<b>Sorbitol (AR)</b>	
			Chemical Formula: C <sub>6</sub> H <sub>14</sub> O <sub>6</sub>	
			Molecular Wt. 182.172 g/mol.	
151	btls	2	<b>Agar Powder</b>	
			for plant tissue culture, 1kg	
152	gm	1	<b>Ethylmethanesulfonate, EMS</b>	
			- a mutagenic chemical	
			Molecular Weight: 124.16 g/mol	
			Molecular Formula: C <sub>3</sub> H <sub>8</sub> O <sub>3</sub> S	
153	btls	2	<b>Potassium phosphate monobasic, KH<sub>2</sub>PO<sub>4</sub></b>	
			Analytical grade	
			Use for enzyme buffers and chemical assays	
			Bottle of 500g	
154	bot	1	<b>Casein Hydrolysate</b>	
			Product Description:	
			Casein Hydrolysate is used as a general purpose culture medium.	
			Appearance: Yellow colored homogeneous free flowing powder	
			Gelling: Firm, comparable with 1.5% Agar gel	
			Colour and Clarity of prepared medium: Light to medium amber coloured, clear to slightly opalescent gel forms in Petri plates.	
			Reaction : Reaction of 3.55% w/v aqueous solution at 25°C. pH : 7.8±0.2 pH 7.60-8.00	
			Packaging: 500grams/bottle	
155	boxes	2	<b>Gloves, Nitrile, Medium</b>	
			☐Glove Type: Chemical Resistant Disposable Gloves	
			☐Glove Material: Nitrile	
			☐Powder-Free	

			■1 box of 100 or 50 pairs
			■Food Safe
			■Size: Medium
156	liters	7	<b>Ethyl Alcohol (95%) (Tech)</b>
157	boxes	3	<b>Filter Paper, 12.5 cm. Ashless #42 or equivalent</b>
			Pore size: 2.5um at least 100 pcs. per box
158	kgs	4	<b>Ammonium Acetate, AR</b>
159	packs	2	<b>Copper Sulphate, 500 grams/pack</b>
160	pcs	150	<b>Polyethylene bags</b>
			4 x 4 x 8"
161	btls	1	<b>Sodium Hydroxide, Technical grade, 5kg/pack</b>
162	bot	1	<b>Potassium Dihydrogen phosphate (100g)</b>
163	sets	6	<b>Separatory Funnel with Ring Stand</b>
			Borosilicate glass
			With stopper and cap material
			With lab compatible lap support stand
			With compatible ring clamp
			Size: 1L
164	pcs	12	<b>Amber Reagent Bottle, 100mL</b>
			With Stopper/Screw Cap
			Material: Glass/Borosilicate Glass
			Capacity: 100mL
165	pcs	12	<b>Amber Reagent Bottle</b>
			With Stopper/Screw Cap
			Material: Glass/Borosilicate Glass
			Capacity: 50mL
166	pcs	2	<b>Heating Mantle</b>
			■220V 500mL/1L/2L Heating Mantle & Magnetic Stirrer Stirring Temperature Regulation Digital Display Lab Electric Sleeve - 2L
167	pcs	6	<b>Anti-static Cleaning Brush</b>
			Ideal for balance and lens cleaning
			For cleaning sensitive surfaces and at the same time removing any existing static charge
			Material: Mixture of natural fibers and conductive synthetic fibers
168	pcs	6	<b>Swivel head bottle/flask brush</b>
			Ideal for a round-bottom flask or rotary flask
			Head of brush swivels, reaching intricate curves and corners
			Natural bristles set in wood will not scrape the cleaned surface
			Head fits into any container with a neck diameter of at least 24 mm (1 in.) or more.



			Reach into deep vessels with utmost 33 cm (13 in.) hardwood handle	
169	packs	3	<b>Centrifuge Tube Brush</b>	
			For centrifuge tubes	
			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water	
			Length: at least 12 inches	
			Brush size diam. x L: utmost 1 1/2 in. x 4 1/2 in.	
			Pack of 4 brushes	
170	packs	3	<b>Pipette Brush</b>	
			For pipette tips	
			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.	
			Length: at least 17 inches	
			Brush size diam. x L: utmost 3/16 - 3/4 in. x 7 1/2 in.	
			Pack of 4 brushes	
171	packs	3	<b>Narrow Tube Brush</b>	
			For narrow tubes	
			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.	
			Length: at least 12 inches	
			Brush size diam. x L: utmost 1/2 in. x 3 in.	
			Pack of 4 brushes	
172	packs	6	<b>Micro Tube Brush</b>	
			For microcentrifuge tubes	
			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.	
			Length: at least 7 inches	
			Brush size diam. x L: utmost 3/16 - 1/2 in. x 3 in.	
			Pack of 4 brushes	
173	pcs	3	<b>Flask Brush</b>	
			For flasks	
			Material: natural bristles	
			Stiff of at least 4 1/2 x 13/4 in.	
			Brush mounted on a preformed, plastic handle that adapts itself to the curvature of the flask.	
			Overall Length: at least 16 in.	
			Fits through at least 24/40 joints.	
174	packs	3	<b>Cylinder Brush</b>	
			For cylinders	

			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.
			Length: at least 20 inches
			Brush size diam. x L: utmost 2 3/8 in. x 6 in.
			Pack of 4 brushes
175	packs	3	<b>Test Tube Brush</b>
			For test tubes
			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.
			Length: at least 10 inches
			Brush size diam. x L: utmost 1 3/8 in. x 4 in.
			Pack of 4 brushes
176	units	4	<b>Pipette Filler</b>
			Compatible with most plastic and glass pipettes from 0.1 to 100mL
			Eight speeds of selection for aspiration and dispensing
			LCD display shows low battery warning and speed setting
			Powerful rechargeable Li-ion battery enables 8h runtime
			Enables single-handed operation with minimum effort
			0.45µm replaceable hydrophobic filter
177	pcs	12	<b>PCR Tube Rack with Cover</b>
			For PCR tubes storage
			Material: PP Autoclavable. Convenient Polypropylene
			Rack for 0.2 ml PCR tubes strips and plates.
			This rack is stackable with or without lid.
			Capacity: 96
178	units	12	<b>Centrifuge Rack, Multifunction</b>
			For storage and general-purpose
			Fit for 10mL, 15mL, 50mL centrifuge tubes
			The centrifuge tube rack can be disassembled and easily assembled.
			The centrifuge tube rack after assembly has two layers
			Holds 30 pcs of 15 mL tubes and 20 pcs of 50mL tubes
179	pcs	24	<b>Glass Centrifuge Tubes, 10mL</b>
			Glass centrifuge tube with screw cap, heavy wall
			Form: Round bottom
			Material: Borosilicate glass
			Capacity: 10mL with graduation
180	pcs	24	<b>Glass Centrifuge Tubes, 50mL</b>

			Glass centrifuge tube with screw cap, heavy wall
			Form: Round bottom
			Material: Borosilicate glass
			Capacity: 50mL with graduation
181	units	6	<b>Laboratory Safety Goggles</b>
			Chemical and heat resistant
			Anti-fog clear polycarbonate lens
			Soft, flexible PVC body molds to facial contours for a comfortable fit
			Resist a broad range of chemicals
			Circular vents allow air to flow freely through the goggle body
			Meet ANSI™ Z87.1-2010 or equivalent
182	units	3	<b>Mini-spin Centrifuge</b>
			Control mode: Power direct drive
			Max. relative centrifuge force: at least 3000 xg
			Max. rotational speed: at least 7000rpm
			Rotor capacity and accessories: inclusions
			Angled rotor 0.2/0.5/1.5/2 ml*12
			PCR rotor 0.2ml*12*4
			Rotor for PCR plates
			Max speed acceleration/reduction: ≤12s /≤15s
183	pcs	20	<b>Laboratory Stool/Chair, Wheeled</b>
			Anti-static stool
			Adjustable height: at least 40-60 cm
			Weight capacity: at least 300lbs
			Ergonomic with hip to mid-waist level back support
			With round footrest/ foot ring
			Anti-slip seat material: Rugged polyurethane
			No. of wheels: 5
			Standard style w/polished aluminum base: 20"-30"
			Seat shape: Round
			Color: Black
184	pcs	20	<b>Laboratory Stool/Chair, Goblet Foot</b>
			Anti-static stool
			Adjustable height: at least 40-60 cm
			Weight capacity: at least 300lbs
			Ergonomic with hip to mid-waist level back support
			With round footrest/ foot ring
			Anti-slip seat material: Rugged polyurethane
			No. of goblet foot 5
			Standard style w/polished aluminum base: 20"-30"
			Seat shape: Round
			Color: Black

185	units	12	<b>Wall-mounted Cupboard/Cabinet</b>	
			Purpose: Laboratory storage cabinet	
			Material: High quality galvanized steel sheet	
			Surface: Electro sprayed with epoxy-resin	
			Door panel: High quality galvanized steel with Glass Door	
			Dimension: at least 1240 x 380 x 570 mm	
			Doors: 3-door cabinet	
			Layer per door: one removable shelf	
			Color: must be WHITE	
			On-site installation included	
186	units	12	<b>Mobile Pedestal Cabinet, Four-drawers</b>	
			Purpose: Laboratory storage cabinet	
			Material: High quality galvanized steel sheet	
			Surface: Electro sprayed with epoxy-resin	
			Dimension: "must" 700 x 530 x 560 mm - the same with existing cabinet	
			Division: Four-drawers	
			Footing: Lock/unlock caster wheels	
			Color: must be WHITE	
			On-site installation included	
187	units	12	<b>Mobile Pedestal Cabinet, Single-door cabinet with single drawer</b>	
			Purpose: Laboratory storage cabinet	
			Material: High quality galvanized steel sheet	
			Surface: Electro sprayed with epoxy-resin	
			Dimension: "must" 700 x 530 x 560 mm - the same with the existing cabinet	
			Division: Single-door cabinet with single drawer	
			Footing: Lock/unlock caster wheels	
			Color: must be WHITE	
			On-site installation included	
188	units	12	<b>Microcentrifuge Rack with Cover, Reversible (2 mL/ 1.5 mL)</b>	
			Polypropylene (PP)	
			Autoclavable	
			Excellent rack for benchtop use or freezer storage.	
			Excellent chemical & temperature resistance	
			80/60 well rack capacities:	
			80-Place for 1.5 & 2.0mL tubes	
			60-Place for 0.5 & 0.2mL tubes	
			With lid or cover	
189	packs	6	<b>Floating Microtube Racks</b>	
			Polypropylene racks keep microtubes submerged in a water bath.	
			Polypropylene construction	

			Detachable
			Ideal for controlling sample temperature
			Round Racks of 1.5 and 2.0 ml
			Capacity: 20 tubes
			Pack of 4 floating racks
190	units	12	<b>Mortar and Pestle, Heavy Duty</b>
			Mortars with spout
			Material: Porcelain for both mortar and pestle
			Inside grinding surface unglazed
			Capacity: 145 mL, 90 x 70 mm
			Heat and cold resistant
191	packs	6	<b>Amber Injection Glass Vials with cover, 2mL</b>
			Screw top vial, 2 mL
			Amber, write-on spot with cover
			Autoclavable
			Compatible with Agilent HPLC Sampler
			Pack of 100 vials
192	packs	6	<b>Amber Injection Glass Vials with cover, 4mL</b>
			Screw top vial, 4 mL
			Amber, write-on spot with cover
			Autoclavable
			Compatible with Agilent HPLC Sampler
			Pack of 100 vials
193	pcs	4	<b>Vortex Mixer, 220V, 2800RPM</b>
194	units	3	<b>Liquid Nitrogen Storage/Transfer Vessel</b>
			N2 Transfer Vessel
			Capacity: 10L
			Lightweight aluminum dewars assure low-static evaporation rates
195	gal	1	<b>Alcohol, Denatured</b>
196	pc	1	<b>Mortar and Pestle (small)</b>
197	pcs	1	<b>Lab Gown Long Sleeves L</b>
			■ Lab Coat High-quality White
			■ Size- Large; long sleeves
198	pack	1	<b>Laboratory Weighing Boats</b>
			Plastic, 100 mL
			at least 100 pcs. pack
199	pc	1	<b>Lab Gown Long Sleeves M</b>
			■ Lab Coat High-quality White
			■ Long sleeves
			■ Medium Size
200	packs	3	<b>Weighing Paper Sheet, Non-Absorbing</b>
			High-Gloss Pack of 500
201	pcs	3	<b>Reagent Bottles</b>
			■ Amber Glass Wide Mouth Bottle Chemical Reagent Storage Bottles

			■250 ML capacity
			■Features:
			—Glass body for chemical, thermal expansion, shock, and heat resistance.
			—Amber glass bottles are perfect for storing materials which are sensitive to degradation from light.
			—Wide mouth, cylindrical shape body for a wide variety of applications that require solution containment.
			—Ground glass stopper seals the bottle to secure contents and help prevent spills and evaporation.
			—Useful for storing both liquids and powders, widely used in chemistry and biology application
202	pcs	3	<b>Graduated Cylinder, Plastic, 1000mL</b>
			Plastic, 1000ml (1L) capacity for Particle Size Analysis
203	pcs	7	<b>Solar Charge Controller</b>
			Voltage: DC 12V/24V
			Rated charge current: 30A
			Max. PV Voltage: 50V
			Max. PV Input power: 12V: 130W-650W, 24V: 260W-1200W
			Charge Current: 10A-50A
			Discharge current: 10A-50A
			Max solar input: <50A
			Self-consume: <10mA
204	pcs	2	<b>Brush for cleaning 250mL Erlenmeyer Flask</b>
			■Bristle Color: White Bristle
			■Brush+Handle Length: 12"
			■Brush Diameter: 1 3/8"
			■Brush Length: 3 1/2"
			■Suitable for cleaning 250mL Erlenmeyer Flask
205	pcs	2	<b>Reagent Bottle</b>
			■With Stopper/Screw Cap
			■Material: Glass/Borosilicate Glass
			■Color: Clear/Transparent Flask
			■Capacity: 2000mL
			■Graduation: 1800mL
206	btls	6	<b>Labware Detergent or Laboratory Dishwashing Liquid</b>
			■Suitable for manual, ultrasonic, and machine washing
			■Completely biodegradable
			■Free of phosphate, chlorine, enzyme, and EDTA
			■Contains anionic and cationic surfactants
			■5 liters per bottle (atleast 2.5L/bot)

			<b>Rebidding(GOODS-22-01)</b>	
207	unit	1	<b>Laboratory Dishwasher</b>	
			Description: Laboratory Dishwasher for glassware	
			Specs:	
			Labware Type: Glassware	
			Door Style: Solid Door	
			Configuration: ADA Undercounter	
			Integral Heater: Yes	
			Electrical Specifications: 115 V, 16 A, 1 Ph, 60 Hz	
			Placement: Free standing	
			Water temperature: up to 93° C	
			size (60m stainless steel; placement (freestanding);	
			with built-in display (LED);	
			water consumption (10L);	
			service capacity (more than 12);	
			energetic calification (A);	
			installation type (integrated)	
			Inclusions:	
			Installation	

## ***Section VII. Technical Specifications***



# Technical Specifications

Item No.	Unit	Qty	Description	STATEMENT OF COMPLIANCE
1	box	1	3 layer Non-woven surgical face mask, at least 50 pcs. per box	<p><i>[Bidders must state here either “Comply” or “Not Comply” against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer’s un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]</i></p>
2	pcs	15	500 ml Type 1, class A borosilicate glass Beaker	
3	btl	1	5-Sulfosalicylic Acid Dihydrate Technical, 500g	
			☐ACS reagent, ≥ 99%	
			☐CAS 5965-83-3	
			☐Crystalline Solid, Powder	
			☐500g	
			☐Technical grade	
4	gal	1	Acetone, Technical Grade, 1gal	
5	packs	3	Activated Acid-washed Charcoal	
			☐Chemical must be plant tissue culture tested for at least 20 years	
			☐ISO complaint	
			☐ACS REAG	
			☐PH EUR	
			☐meets USP Standards	
			☐Bioreagent suitable for cell culture	
			☐2.5kg per pack	
6	btl	1	Activated Charcoal suitable for plant cell and tissue culture (5g)	
7	btl	1	Agar for plant cell and tissue culture (500g)	
8	btl	1	Agarose (type II) suitable for plant cell and tissue culture (50g)	
9	gals	6	Alcohol, Denatured	
10	kgs	2	Ammonium Acetate, AR	
11	btl	1	Ammonium Flouride	
			☐White crystalline	
			☐ACS reagent, ≥98.0%	
			☐500g	
12	kg	1	Ammonium nitrate (NH <sub>4</sub> NO <sub>3</sub> ) suitable for plant cell and tissue culture	
13	btl	1	Ascorbic acid	
			☐Analytical reagent grade, crystalline powder, 500 g/bottle	
14	pc	1	Autoclavable Pipetter of Single Channel, 0.2-2 µl	
			with stainless steel ejector	
			volume in micro liter (range: 0.2 - 2)	
			increment: 0.002 micro liter	

			systematic error in micro liter (range: $\pm 0.024$ to $\pm 0.03$ )	
			random error in micro liter (range: $\leq 0.012$ to $\leq 0.014$ )	
			systematic error percentage (range: $\pm 12$ , to $\pm 1.5$ )	
			random error in CV (range: $\leq 6$ to $\leq 0.7$ )	
			each pipette should be calibrated according to ISO 8655 standards	
			variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones	
			secure volume lock	
			Five year warranty	
15	pc	1	<b>Autoclavable Pipetter of Single Channel, 100-1000 ul</b>	
			with stainless steel ejector	
			volume in micro liter (range: 100 - 1000)	
			increment: 1 micro liter	
			systematic error in micro liter (range: $\pm 3$ to $\pm 8$ )	
			random error in micro liter (range: $\leq 0.6$ to $\leq 1.5$ )	
			systematic error percentage (range: $\pm 3$ to $\pm 0.8$ )	
			random error in CV (range: $\leq 0.6$ to $\leq 0.15$ )	
			each pipette should be calibrated according to ISO 8655 standards	
			variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones	
			secure volume lock	
			Five year warranty	
16	pc	1	<b>Autoclavable Pipetter of Single Channel, 10-100 ul</b>	
			with stainless steel ejector	
			volume in micro liter (range: 10 - 100)	
			increment: 0.2 micro liter	
			systematic error in micro liter (range: $\pm 0.35$ to $\pm 0.8$ )	
			random error in micro liter (range: $\leq 0.10$ to $\leq 0.15$ )	
			systematic error percentage (range: $\pm 3.5$ to $\pm 0.8$ )	
			random error in CV (range: $\leq 1.0$ to $\leq 0.15$ )	
			each pipette should be calibrated according to ISO 8655 standards	
			variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones	
			secure volume lock	
			five year warranty	
17	pc	1	<b>Autoclavable Pipetter of Single Channel, 1-10 ul</b>	
			with stainless steel ejector	

			<i>volume in micro liter (range: 1 - 10)</i>	
			<i>increment: 0.02 micro liter</i>	
			<i>systematic error in micro liter (range: <math>\pm 0.025</math> to <math>\pm 0.1</math>)</i>	
			<i>random error in micro liter (range: <math>\leq 0.012</math> to <math>\leq 0.04</math>)</i>	
			<i>each pipette should be calibrated according to ISO 8655 standards</i>	
			<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>	
			<i>secure volume lock</i>	
			<i>five year warranty</i>	
18	pc	1	<b>Autoclavable Pipetter of Single Channel, 20-200 ul</b>	
			<i>with stainless steel ejector</i>	
			<i>volume in micro liter (range: 20 - 200)</i>	
			<i>increment: 0.2 micro liter</i>	
			<i>systematic error in micro liter (range: <math>\pm 0.5</math> to <math>\pm 1.6</math>)</i>	
			<i>random error in micro liter (range: <math>\leq 0.2</math> to <math>\leq 0.3</math>)</i>	
			<i>systematic error percentage (range: <math>\pm 2.5</math> to <math>\pm 0.8</math>)</i>	
			<i>random error in CV (range: <math>\leq 1.0</math> to <math>\leq 0.15</math>)</i>	
			<i>each pipette should be calibrated according to ISO 8655 standards</i>	
			<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>	
			<i>secure volume lock</i>	
			<i>five year warranty</i>	
19	pc	1	<b>Autoclavable Pipetter of Single Channel, 2-20 ul</b>	
			<i>with stainless steel ejector</i>	
			<i>volume in micro liter (range: 2 - 20)</i>	
			<i>increment: 0.02 micro liter</i>	
			<i>systematic error in micro liter (range: <math>\pm 0.1</math> to <math>\pm 0.2</math>)</i>	
			<i>random error in micro liter (range: <math>\leq 0.03</math> to <math>\leq 0.06</math>)</i>	
			<i>systematic error percentage (range: <math>\pm 5</math> to <math>\pm 1</math>)</i>	
			<i>random error in CV (range: <math>\leq 1.5</math> to <math>\leq 0.3</math>)</i>	
			<i>each pipette should be calibrated according to ISO 8655 standards</i>	
			<i>variable volume micropipettes feature built-in tip ejectors and autoclavable tip cones</i>	
			<i>secure volume lock</i>	
			<i>five year warranty</i>	
20	unit	1	<b>Basic Bench pH meters with replaceable electrode and buffer</b>	
			■Accuracy temperature: $\pm 0.3^{\circ}\text{C}$	
			■Accuracy pH: $\pm 0.1$	

			☑Electrical requirements: AC/DC 9 V adapter (220 VAC, 60 Hz)
			☑Resolution (mV): 0.1 mV ( $\pm 199.9$ mV); 1 mV beyond $\pm 200$ mV
			☑Temp probe calibration: offset in 0.1°C increments; offset range $\pm 5^\circ\text{C}$
			☑Range pH: 0 to 14
			☑Accuracy mV: $\pm 0.2$ mV ( $\pm 199.9$ mV), $\pm 2$ mV beyond $\pm 200$ mV
			☑Calibration points: 1 to 5 points with automatic buffer recognition (ABR)
			☑Include 13-620-AE6 3-in-1 single junction gel pH/ATC electrode
			☑Memory: 100 datasets
			☑Resolution temperature: 0.1°C
			☑Temperature compensation: automatic or manual (0 to 100°C)
			☑Temperature range metric: 0.0 to 100.0 °C
			☑Range mV: $\pm 1999$ mV
			☑Resolution pH: 0.01
			☑Power source: 220 - 240 50/60 Hz
			☑Warranty: 2-year meter warranty; 6-month electrode warranty
21	pcs	10	<b>Beaker, Glass, 150 mL</b>
			☑Low Form Beaker
			☑Borosilicate Glass
			☑Transparent Beaker
			☑Thickened With Spout
22	pcs	2	<b>Beaker, Glass, 2000mL, borosilicate glass</b>
23	btl	1	<b>Benzylaminopurine (BAP) suitable for plant cell and tissue culture (5g)</b>
24	btl	1	<b>Biotin, powder, BioReagent, suitable for plant cell and tissue culture (500mg)</b>
25	btl	1	<b>Boric acid (H3BO3) suitable for plant cell and tissue culture</b>
			molecular weight: 61.83
			500 grams
26	kgs	2	<b>Boric Acid, Analytical Reagent</b>
27	btl	1	<b>Bromocres of purple suitable for plant cell and tissue culture (5g)</b>
28	pc	1	<b>Brush for cleaning 250mL Erlenmeyer Flask</b>
			☑Bristle Color: White Bristle
			☑Brush+Handle Length: 12"
			☑Brush Diameter: 1 3/8"
			☑Brush Length: 3 1/2"
			☑Suitable for cleaning 250mL Erlenmeyer

			Flask	
29	btls	3	<b>Calcium Chloride</b>	
			■AR grade; 500g	
30	btl	1	<b>Calcium Chloride (CaCl<sub>2</sub>) suitable for plant cell and tissue culture</b>	
			Dried	
			1.5-2.5mm	
			Molecular Weight: 246.47	
			500grams	
31	set	1	<b>Camera V2 Module Light-sensitive Chips 8MP Pixel with IMX219 1080P Video Suppo</b>	
			■Support infrared night vision function, can switch day and night mode, night vision picture clearer.	
			■With high-definition camera quality, bring pure and exquisite picture quality experience, the image is clearer.	
			■The day&night vision camera perfectly compatible for Raspberry Pi series 4B/3B+/3B/2B Model.	
			■The product includes 1 piece night vision camera, 1 piece flex cable.	
32	set	1	<b>Camera v2 Module, Official 8MP Night Vision IMX219 Sensor</b>	
			■No IR filter	
			■High-quality imagery	
			■High data capability	
			■8 megapixels fixed focus	
			■Supports 1080p, 720p60 & VGA9	
			■15-pin ribbon cable	
			■Second Generation Raspberry Pi NoIR Camera Module with Fixed Focus Lens	
			■Sony Exmor IMX219 Sensor Capable of 4K30, 1080P60, 720P180, 8MP Still	
			■3280 (H) x 2464 (V) Active Pixel Count	
			■Maximum of 1080P30 and 8MP Stills in Raspberry Pi Board	
			■2A Power Supply Highly Recommended	
33	btl	1	<b>Casein hydrolyzate for tissue culture suitable for plant cell and tissue culture (100g)</b>	
34	btl	1	<b>Cobalt chloride (CoCl<sub>2</sub>, 6H<sub>2</sub>O) suitable for plant cell and tissue culture</b>	
			Molecular weight: 249.68	
			500g	
35	btl	1	<b>Colchicine suitable for plant cell and tissue culture (1g)</b>	
36	btls	4	<b>Copper sulfate, CuSO<sub>4</sub></b>	
			■Anhydrous, Analytical reagent grade, 500g/bottle	

37	pack	1	<b>Copper Sulphate, 500 grams/pack</b>
38	btl	1	<b>Cupric sulfate (CuSO<sub>4</sub>, 5H<sub>2</sub>O) suitable for plant cell and tissue culture (500g)</b>
39	btl	1	<b>D-Calcium panthothenate suitable for plant cell and tissue culture (100g)</b>
40	sets	5	<b>Digital Smart Temperature Controller K Thermocouple Thermostat</b>
			☐Item Name: Intelligent Thermostat
			☐Material: ABS
			☐Working Voltage: 220VAC, 50Hz/60Hz
			☐Temperature Control Accuracy: 1.0 Control Method PID Control and Self-tuning Control
			☐Working Environment: 0~50 Degree Celsius
			☐Relative Humidity: 30 Percent~85 Percent RH
			☐Input Mode: K/E/J/R/S/B/N/T/PT100/CU500 Adjustable
			☐Output Mode: Relay
			☐Features: Convenient to Use, Fine Workmanship, Durable
			☐Size:48 x 48 x 107mm/1.89" x 1.89" x 4.21" (Approx.)
			☐Panel Size: 48 x 48mm/1.89" x 1.89" (Approx.)
			☐Hole Size: 45 x 45mm/1.77" x 1.77" (Approx.)
			☐Blue water container
41	btl	1	<b>EMS (Ethyl methanesulfonate) for plant genetic studies (10g)</b>
42	pcs	20	<b>Erlenmeyer Flask, Glass, 250mL</b>
			☐Material: Borosilicate Glass
			☐Good Quality
43	pcs	20	<b>Erlenmeyer Flask, Glass, 500ml</b>
			☐Material: Borosilicate Glass
			☐Good Quality
44	btl	1	<b>Ethylenediaminetetraacetic acid disodium salt (Na<sub>2</sub>-EDTA) suitable for plant cell and tissue culture(500g)</b>
45	sets	5	<b>Exhaust Gas Temp Sensor 2m EGT K Type Thermocouple Probe Exhaust Temperature Sensors Threads Exhaust</b>
46	set	1	<b>FCI-INGAAS-1000 IR InGaAs Photodiode, Through Hole TO-46, TO-5</b>
			☐Spectrum Detected: Infrared
			☐Package type: TO-46, TO-5
			☐Mounting Type: Through hole
			☐Number of Pins: 2
			☐Diode Material: InGaAs
			☐Minimum wavelength Detected: 900nm

			☐Maximum wavelength Detected: 1700nm	
47	btl	1	<b>Ferrous sulfate (FeSO<sub>4</sub>, 7H<sub>2</sub>O) suitable for plant cell and tissue culture</b>	
48	btl	8	<b>Ferrous Sulphate</b>	
			☐Analytical Grade	
			☐500 G	
49	gms	1	<b>Gellan Gum, Agar substitute gelling agent suitable for plant cell and tissue culture (250g)</b>	
50	boxes	7	<b>Gloves, Nitrile, Large</b>	
			☐Glove Type: Chemical Resistant Disposable Gloves	
			☐Glove Material: Nitrile	
			☐Powder-Free	
			☐1 box of 100 or 50 pairs	
			☐Food Safe	
			☐Size: large	
51	boxes	2	<b>Gloves, Nitrile, Medium</b>	
			☐Glove Type: Chemical Resistant Disposable Gloves	
			☐Glove Material: Nitrile	
			☐Powder-Free	
			☐1 box of 100 or 50 pairs	
			☐Food Safe	
			☐Size: Medium	
52	pack	1	<b>Grade 1 Qualitative Filter Paper, Diameter: 12.5cm, Pore Size: 11µm, at least 100 pcs./pack</b>	
53	btl	1	<b>Indoleacetic acid (IAA) suitable for plant cell and tissue culture (5g)</b>	
54	pcs	4	<b>Lab Gown Long Sleeves L</b>	
			☐Lab Coat High-quality White	
			☐Size- Large; long sleeves	
55	boxes	2	<b>Latex Disposable Gloves Powder Free (Medium), 100 pcs. or 50 pairs per box</b>	
56	btl	1	<b>L-Proline (pure grade), 500g</b>	
			☐L-Proline (pure grade; solid 500g)	
			☐Assay: ≥99%	
			☐White crystals	
57	btl	1	<b>Magnesium Sulphate (MgSO<sub>4</sub>.7H<sub>2</sub>O) suitable for plant cell and tissue culture</b>	
			Wt. 169.01	
			Colourless efflorescent crystals	
			500 grams	
58	btl	1	<b>Manganese sulfate (MnSO<sub>4</sub>, H<sub>2</sub>O) suitable for plant cell and tissue culture (500g)</b>	
59	btl	1	<b>Methyl orange, Sodium salt</b>	
			☐CAS 547-58-0	

			■25g
			■Orange Solid, Crystalline
			■Analytical Grade
60	pcs	1	<b>Microscope Slides and cover slips</b>
			■Pre-Cleaned Blank slides with 100 22 x 22 mm square Cover Slip
61	box	1	<b>Microscope Slides and Square Cover Glass</b>
			■100pc pre-cleaned blank microscope glass slides with ground edges plus 100 piece 22x22mm square glass cover slips.
			■Slide dimensions - 1" x 3" (25.4x76.2mm) with ground edges.
			■Cover slips are 7/8 x 7/8" (22x22mm) and 0.006" (0.13-0.17mm) in thickness.
62	btl	1	<b>Molybdic acid (sodium salt) (Na<sub>2</sub>MoO<sub>4</sub>, 2H<sub>2</sub>O) suitable for plant cell and tissue culture ( 500grams, AR)</b>
63	set	1	<b>Multifunctional LCD Digital Multimeter DMM DC AC Voltage Current Resi</b>
			■Maximum display: 4000
			■Operational temperature: 0-40°C, <75%
			■RH Storage temperature: -20-60°C, <80% RH
			■Power supply: 3V (2 * 1.5V)
			■AAA battery (Not included) Power consumption: 4.5mW (Typical)
			■DC voltage: 400.0mV/4.000V/40.00V/400.0V/600V DC
			■voltage resolution: 0.1mV/1mV/10mV/100mV/1V
			■AC voltage (RMS): 400.0mV/4.000V/40.00V/400.0V/600V
			■AC voltage resolution: 0.1mV/1mV/10mV/100mV/1V
			■DC current: 40.00mA/400.0mA/10.00A
			■DC current resolution: 10µA/100µA/10mA
			■AC current (RMS): 40.00mA/400.0mA/10.00A
			■AC current resolution: 10µA/100µA/10mA
			■Resistance: 400.0Ω/4.000kΩ/40.00kΩ/400.0kΩ/4.000MΩ/ 40.00MΩ
			■Resistance resolution: 0.1Ω/1Ω/10Ω/100Ω/1kΩ/10kΩ
			■Capacitance: 4.000nF/40.00nF/400.0nF/4.000µF/40.00µF/2 00µF
			■Capacitance resolution: 1pF/10pF/1nF/10nF/100nF/1000nF



			<p>☐Frequency: 99.5Hz/999.5Hz/9.999kHz/99.99kHz/999.9kHz/9.999MHz Frequency resolution: 0.5Hz/0.5Hz/1Hz/10Hz/100Hz/1kHz</p>
			☐Duty cycle: 0.1% to 99.9%
			☐Item size: 130 * 65 * 32mm / 5.1 * 2.56 * 1.26in
			☐Item weight: 114.5g / 4.0oz
			☐Package weight: 224g / 7.9oz
			☐Package size: 16 * 8 * 5cm / 6.3 * 3.15 * 1.97in
			☐Package List: 1 * Multimeter 1 * Pair of test leads 1 * English user manual 1 * Carrying bag
64	btl	1	<b>Myo-inositol suitable for plant cell and tissue culture (100gms)</b>
65	set	1	<b>Nano Engraving Transmission Diffraction Grating Teaching, wavelength range:2</b>
			☐Size: 20 x 20mm
			☐Material: Glass
			☐Structure: Diffraction Grating
			☐wavelength range: 200nm – 10,000nm
66	btl	1	<b>Nicotinic acid suitable for plant cell and tissue culture (100g)</b>
67	btl	1	<b>Ninhydrin (1,2,3 -Indanetrione monohydrate), 50g</b>
			☐CAS 485-47-2
			☐White solid
			☐50g
			☐Analytical Grade
68	btl	1	<b>Peptone</b>
			☐500g for bacteriological work
69	gallon	1	<b>Petroleum Ether, AR</b>
70	kls	6	<b>Phytigel, Sigma (Should be Sigma for Protocol)</b>
			☐Chemical must be plant tissue culture tested for at least 20 years
			☐ISO complaint
			☐ACS REAG
			☐PH EUR
			☐meets USP standards
			☐Bio reagents suitable for cell culture
71	set	1	<b>Portable Moisture Tester for Grain with Digital Meter Readout, Grain Tester with Carry Case</b>
			Specification:
			Backlit display for nighttime use
			Built-in calibration button for displaying the average of saved test results
			Multi-language display

			<i>Higher-frequency, capacitive circuit improves accuracy</i>
			<i>Moisture range: 5% to 40% depending on grain tested</i>
			<i>Temperature range: 32° to 113°F (0° to 45°C)</i>
			<i>Repeatability &amp; Accuracy: ± 0.5% in normal moisture range for stored grain</i>
			<i>Single-point or Precision multi-point calibration to match local elevator</i>
			<i>Direct readout for 40 different grain scales</i>
			<i>Case color: Black</i>
			<i>Material: Plastic</i>
			<i>Power source: Battery-powered</i>
			<i>Voltage: 9 Volts</i>
			<i>Certification: certified frustration-free</i>
			<i>Battery included: yes</i>
			<i>Includes Protective carrying case with shoulder strap</i>
			<i>with warranty</i>
72	btl	1	<b>Potassium Antimony Tartrate (III) Hydrate, AR</b>
73	kgs	4	<b>Potassium Chloride</b>
			☐ <i>Chemical must be plant tissue culture tested for at least 20 years</i>
			☐ <i>ISO complaint</i>
			☐ <i>ACS REAG</i>
			☐ <i>PH EUR</i>
			☐ <i>meets USP Standards</i>
			☐ <i>Bioreagent suitable for cell culture</i>
74	btl	3	<b>Potassium Dichromate, AR Grade</b>
			☐ <i>500 grams/poly bottle</i>
75	btl	1	<b>Potassium iodide (KI) suitable for plant cell and tissue culture</b>
			<i>Molecular weight 166</i>
			<i>500 grams</i>
76	kgs	1	<b>Potassium Nitrate (KNO<sub>3</sub>) suitable for plant cell and tissue culture</b>
			<i>1 kilogram of Potassium Nitrate</i>
77	btl	1	<b>Potassium Phosphate (KH<sub>2</sub>PO<sub>4</sub>) suitable for plant cell and tissue culture (500g)</b>
78	btl	1	<b>Pyridoxine.HCl suitable for plant cell and tissue culture(25g)</b>
79	packs	5	<b>Resealable Plastic Bag, Large</b>
			☐ <i>resealable pastic bag, zip lock, 340 mm x 450 mm (13" x 18"), 100 pcs per pack</i>
80	set	1	<b>Serial Basic Breakout - CH340G</b>
			☐ <i>It works with 5V and 3.3V systems</i>
			☐ <i>USB-to-Serial adapter</i>

81	btls	10	<b>Sodium Hydroxide, AR 500G</b>
			■500 g/bottle, AR, Pellets
82	packs	30	<b>Sodium Hydroxide, Technical grade, 1kg/pack</b>
83	sets	4	<b>soil temperature and humidity probe / waterproof I2C temperature and humidity sensor module te</b>
			■Power supply voltage: 2.4~5.5VDC
			■Measurement accuracy: temperature $\pm 0.1^{\circ}\text{C}$ , humidity plus or minus 1.5%RH
			■Working test range: $-40^{\circ}\text{C}\sim 125^{\circ}\text{C}$ , 0%RH~100%RH
			■Resolution: $0.1^{\circ}\text{C}$ , 0.1%RH
			■Communication protocol: standard I2C protocol
			■Line length: 1M
			■Wiring method: VCC-red, GND-black, SLC-yellow, SDA-green
84	pc	1	<b>Stainless Steel Crucible Tongs</b>
			■25 cm
			■Stainless Steel
85	pcs	2	<b>Stainless Steel Laboratory Microspatula</b>
86	btl	1	<b>Standard Method Agar (PCA)</b>
			Plate Count Agar
			500g
87	pc	1	<b>Stirring Rod</b>
			■big size, $\geq 10$ inches long, fire polished ends with no policeman
88	btl	1	<b>Thiamine.HCl suitable for plant cell and tissue culture (25gms)</b>
89	btl	1	<b>Toluene</b>
			■(CAS 108-88-3)
			■2.5 liters,
			■Analytical Grade
			■99.5%,
90	set	1	<b>Triad Spectroscopy Sensor - AS7265x (Qwiic) (SPARKFUN)</b>
			■Selectable interface: I2C or Serial (115200bps)
			■18 frequencies of light sensing from 410nm to 940nm
			■28.6 nW/cm <sup>2</sup> per count
			■Accuracy of +/- 12%
			■Integrated 405nm UV, 5700k White, and 875nm IR LEDs
			■Software control over each illumination LED as well as current control
			■Optional external bulb or illumination control
			■Programmed with latest firmware from AMS

91	pairs	6	<b>Utility Gloves, Rubber, Large, Non-Sterile</b>	
92	pc	1	<b>Wide Mini-Sub Cell Horizontal Electrophoresis System</b>	
			<i>Base footprint (LxWxH): 25.5x17.8x6.8cm</i>	
			<i>Base buffer volume: 650-900ml</i>	
			<i>Base Gel size: 15x7cm</i>	
			<i>Tray sizes: 15x10 cm</i>	
			<i>Base: Molded clear plastic</i>	
			<i>Gel Casting gates: Aluminum</i>	
			<i>Safety Lids: Molded clear Plastic</i>	
			<i>Electrode wire guard: Molded polycarbonate</i>	
			<i>Banana Plugs: Gold-plated brass, 4.4cm length</i>	
			<i>Electrode: Platinum, 0.25mm diameter</i>	
			<i>Electrical cables: Dual, 20AWG, tinned copper wire cable, Flame-retardant polyurethane insulation jacket</i>	
			<i>Electrical leads: Nickel-silver</i>	
			<i>Gel Tray: UV- transparent acrylic plastic (UVTP)</i>	
			<i>Combs: Molded plastic and machined acrylic</i>	
			<i>Gel casting device: polycarbonate 0.64 cm silicon foam</i>	
			<i>Input power: Nominal= 220–240 VAC, 50–60 Hz; 700 W maximum</i>	
			<i>with power supply</i>	
			<i>Actual = 90-132 or 198-264 VAC, 50-60-Hz</i>	
			<i>Fuses: 2.5 A, 250VAC, 5mmx20mm. Type T</i>	
			<i>Input power cord: 3-wired; grounded</i>	
			<i>Output (programmable)</i>	
			<i>Voltage: 10V to 300V, fully adjustable in 1 V steps</i>	
			<i>Voltage accuracy: ±2% of reading or 3 volts, whichever is more</i>	
			<i>Current: 4mA to 400mA, fully adjusted in 1 mA steps</i>	
			<i>Current accuracy: ±2% of reading or 3mA, whichever is more</i>	
			<i>Power(maximum): 75W</i>	
			<i>Terminals: 4-pair recessed banana jack, floating parallel</i>	
			<i>Timer Control: 001-999 minutes, fully adjustable</i>	
			<i>Ripple: 1% @300 V and 70W</i>	
			<i>Line Regulation: 1% @300 V and 70W, 90-132 or 198-264 VAC</i>	
			<i>Load Regulation: 1% @300 V for 50% change in output load</i>	
			<i>Drift: 1% @ after 15mins warm up at 300V and 70W</i>	
			<i>Noise: 55dBA at 1 meter</i>	
			<i>Readout stability: Volts= ± V; Current: ±1Ma</i>	

			Auto power up after power failure: User selectable, setup values maintained
			Safety compliance: EN-61010
			EMI: Conforms to CE standard for emissions and immunity Class A, testes only at 230 V
			Display function: 3-digit LED display, voltage, current or time
			Function Modes: Constant voltage, constant current, timer, pause, user selectable
			Automatic power up after power failure
			Envi: Operating Tem (40°C); Humidity (0-95%, in the absence of condensation)
			Dimensions (W x D x H): 25 x 21 x 8.5 cm
			unit is stackable
			Inclusions: Lid with Cables, 15cm x 10cm (WxL) UV transparent tray, Leveling bubble, 15-well comb, fixed height, 1.5 mm thickness, 20-well comb, fixed height, 1.5 mm thickness, Gel caster, PowerPac Basic Power Supply
93	btl	1	<b>Zinc sulfate (ZnSO<sub>4</sub>, 7H<sub>2</sub>O) suitable for plant cell and tissue culture</b>
			molecular weight: 287.54
			500grams
94	packs	30	<b>1.8 mL Cryotubes</b>
			■ 1.8ml freezing tube
			■ Material: Plastic
			■ Color: clear with orange caps
			■ Packaging: 10pcs/pack
			■ Purpose: Multifunctional cryotubes
95	packs	4	<b>1-5 mL Pipette Tips</b>
			■ 5000 uL (5ml) pipette tips
			■ Diameter of inner tube: 13 mm
			■ Available in bulk packs.
			■ Virgin polypropylene.
			■ Autoclavable
			■ Color: Natural
			■ Package: 300pcs/pack
			■ 1000-5000uL (1-5mL) capacity
96	units	3	<b>5 ml Pipette Rectangle Pipette Tip Box</b>
			■ Material: Plastic, autoclavable
			■ 28 Positions
			■ Fit for 5ml pipettor tips
			■ Each hole diameter : 11mm/0.43"
			■ Total size: 12 x 9.3 x 16 cm/4.72" x 3.66" x 6.3" (LxWxH).
			■ Weight: 148g
			■ Empty box, not including tips
97	packs	3	<b>5ml Plastic Centrifuge - Microtubes/Vials</b>

			☐Specifications:
			◀Scale: 5ml (Permissible error 0.1 ml)
			◀Length: 63mm / outer diameter: 15mm
			◀Material: PP
			◀Type: Disposable
			◀Withstand temperature range: -80 ? + 121 degrees C
			◀Autoclavable: 121 degree C.
			◀Highest speed: 12000 r/min, continuous work for 15 minutes
			◀Benefits: Smooth side walls, good transparency, good sealing lid, the sample is not volatile, convenient printing scale experimental measurement.
			◀Package include: 30 x 5ml plastic centrifuge test tube vial container
98	unit	1	<b>Constant Temperature Incubator</b>
			☐Capacity: 50L
			☐TEMP RANGE: RT+5-65°C
			☐TEMP PRECISION: 0.1 °C
			☐Features:
			☐LCD display
			☐Microprocessor temperature controller
			☐The working chamber adopts round angle structure, easy to clean.
			☐Double door design and magnetic door sealing.
			☐Water-jacket function which helps to keep long time temperature upon power off.
			☐Water overflow protection
			☐Safety function:
			☐Over temperature protection, temperature sensor malfunction alarm.
			☐Parameters can be saved automatically when power off or system error.
			☐High and low water level alarm, automatic heating off for low water level.
99	unit	1	<b>Horizontal Benchtop Autoclave Steam Sterilizer</b>
			☐Horizontal Benchtop Autoclave Steam Sterilizer, 24 L
			☐Specifications:
			☐Chamber Capacity: 26x46cm
			☐Inside Capacity: 24.41L
			☐Sterilize Temperature: 126 deg. celsius (highest)
			☐Sterilize Pressure: 1.5kg/cm3 (highest)
			☐Sterilize Time: 35 minutes
			☐Heater: 1500W


			☐Material Quality: Stainless Steel SUS No. 304, Boiler chamber surface with burnish
			☐Electric Current: 220V 7A9A
			☐Safety Equipment: Double pressure adjustment, adjust the inner pressure, if over standard value automatic vent
100	pc	1	<b>Laboratory Stool/Chair, Wheeled</b>
			Anti-static stool
			Adjustable height: at least 40-60 cm
			Weight capacity: at least 300lbs
			Ergonomic with hip to mid-waist level back support
			With round footrest/ foot ring
			Anti-slip seat material: Rugged polyurethane
			No. of wheels: 5
			Standard style w/polished aluminum base: 20"-30"
			Seat shape: Round
			Color: Black
101	set	1	<b>Manual Ball Sealer for Semen Straws, 0.5mL Set</b>
			☐Used for sealing individual 0.5ml semen straws.
			☐Includes:
			◀ Sealing ball, glass, for 0.5 ml straws, black (REF: 13400/1000) - 1 pack for 1000 pcs
			◀ Sealing ball, metal, for 0.5 ml straws (REF: 13400/9900) - 2 packs for 2000 pcs
			◀ EcoStraw, 0.5 ml, transparent grey (REF: 13408/3074) - 1 pack for 2500pcs
			◀ 1 MiniCutter for semen straws (REF: 17062/0010)
102	unit	1	<b>Micro Centrifuge Ventilated (Ambient)</b>
			☐Angle rotor 24 x 1.5 ml / 2.0 ml, with standard cover
			☐Angle of rotor: 45°
			☐Max. speed: 15000 rpm
			☐Max. RCF: 21380 x g
			☐Construction:
			☐Weight without rotor: at most 35 kg (77 lbs)
			☐The centrifuge's main body shall be constructed from electrogalvanized steel; chamber construction is plastic ABS (Acrylonitrile butadiene styrene).
			☐External surfaces are powder coated with Isocide™ antimicrobial coating on all painted surfaces to inhibit bacterial growth.
			☐Power requirements:
			☐The centrifuge shall work on 230 V AC, 50/60 Hz
			☐Performance:

			☐RCF range: 10-21380 x g	
			☐Speed range: 200-15000 rpmM	
			☐Maximum volume: 44 x 1.5/2.0 ml; 4 x 8 PCR strips; 24 capillaries	
			☐Number of rotor options: 7	
			☐Temperature control range: Ambient	
			☐Time set range: 99 hrs 59 mins / 59 min 50 s in 1min / 10s increments / continuous	
			☐Maintenance-free, brushless motor	
			☐Equipped with German-originated motor, requiring neither bearing replacement nor change oil.	
			☐No carbon brush, low interference to radio equipment.	
			☐Aerosol-tight rotor	
			☐High-quality, extremely robust aluminum lid rotor for aerosol-tight centrifugation	
			☐All rotor, buckets, lids, and adapters are autoclavable (20 min, 121°C).	
			☐V-balance™ weight imbalance protection	
			☐Automatic imbalance recognition that allows the rotor to decelerate and stop.	
			☐Genuine-Protex™ safety lid design	
			☐Safety lid with motor-driven design, provides a real safe protection for misoperation.	
			☐Large storage space	
			☐Allow the users to edit and store up to 99 programs with speed, centrifugal force, running time, temperature, and acceleration or deceleration rate, and rotor code.	
			☐Automatic conversion between RPM and RCF	
			☐Adjustable acceleration / deceleration control system- Offer 10 different types of acceleration / deceleration rate options. Both 0-9 options on acceleration/deceleration.	
			☐Alarm system- Audible and visual alarms are activated during system failure. There are total of 10 alarm sounds available.	
			☐Overspeed protection (OSP)	
			☐Over-temperature protection (OTP)	
			☐Various operation mode- Three types of spin mode: short spin for short running, continuous spin and time-setting spin can be chosen to suit various applications.	
			☐Real-time modification of parameter - The parameters like rotary speed, RCF, running time, and temperature can be adjusted during the operation to improve your working efficiency.	
			☐Controller:	



			<ul style="list-style-type: none"> <li>Microprocessor control system - Big rotary knob and buttons, convenient for rotation and operation and large LCD screen with clear indication of running condition including rotor, speed, time etc.</li> </ul>
			<ul style="list-style-type: none"> <li>Operation panel is water-proof which can well protect the inner electric parts.</li> </ul>
			<ul style="list-style-type: none"> <li>An error message is displayed on LCD for troubleshooting and an audible alarm is activated during system failure.</li> </ul>
103	unit	1	<b>Microwave Oven, 30L</b>
			<ul style="list-style-type: none"> <li>30 Liters Microwave Oven</li> </ul>
			<ul style="list-style-type: none"> <li>Quick Defrost</li> </ul>
			<ul style="list-style-type: none"> <li>Push Bottom + Knob + Digital</li> </ul>
			<ul style="list-style-type: none"> <li>Automatic Programmes</li> </ul>
			<ul style="list-style-type: none"> <li>5 Power Levels</li> </ul>
			<ul style="list-style-type: none"> <li>LED White Color</li> </ul>
			<ul style="list-style-type: none"> <li>Turntable Size: 315mm</li> </ul>
			<ul style="list-style-type: none"> <li>Voltage: 230V</li> </ul>
			<ul style="list-style-type: none"> <li>Frequency: 60Hz</li> </ul>
			<ul style="list-style-type: none"> <li>Microwave Power: 100W</li> </ul>
104	packs	10	<b>PET Seal Bottles/Reagent Vials</b>
			<ul style="list-style-type: none"> <li>EREMY1 Portable Bottle Container PET Seal Bottles Spray Bottle Pill Container Powder Container Reagent Vials Plastic Chemical Container</li> </ul>
			<ul style="list-style-type: none"> <li>Color: Clear</li> </ul>
			<ul style="list-style-type: none"> <li>Quantity: 10pcs/pack</li> </ul>
			<ul style="list-style-type: none"> <li>Type: Refillable Bottles: 15ml, 20ml, 30ml, 60ml</li> </ul>
105	set	1	<b>Pipettor Set - Volumetric Pipette Controller and Miropipette Pipettors Complete</b>
			<ul style="list-style-type: none"> <li>1- Electronic pipette controller - 0.1-200mL range; battery pack: Lithium battery 2.4V; pipetting speed: 50ml in less than 10 seconds; for glass and plastic pipettes from 0.1-200ml; includes assorted reusable/autoclavable glass pipettes 10-50mL capacity</li> </ul>
			<ul style="list-style-type: none"> <li>4- Micropipette set - fully autoclavable; volumes: 2uL-20uL, 10uL-100uL, 100uL-1000uL, 500uL-5000uL; color-coded push buttons for each volume; includes carousel stand</li> </ul>
106	set	1	<b>Plastic Dredge Reagent Bottles</b>
			<ul style="list-style-type: none"> <li>Made of PE material for durable and practical to use.</li> </ul>
			<ul style="list-style-type: none"> <li>250ml capacity</li> </ul>
			<ul style="list-style-type: none"> <li>Color: white with blue cap</li> </ul>
			<ul style="list-style-type: none"> <li>Size: About 11.00 x 7.00 x 5.00cm/4.32 x 2.75 x 1.97 inch.</li> </ul>

			☐The product is light and compact, easy to use and portable to carry.	
			☐Package Includes: 10 x bottles	
107	packs	2	<b>Rectangle Microscope Glass Slide Holder Box</b>	
			☐Microscope 5-Slide Box	
			☐Material : Plastic	
			☐Each Box Can Hold 5 pieces of microscope slides	
			☐Box Size : 8.7 x 2.8 x 1.9cm	
			☐Fit Slide Size : 7.8x 2.6cm	
			☐Package Weight : 100g	
			☐Package : 10 x Microscope Slide Box	
108	units	5	<b>Stainless Steel Thermal Insulated Flask</b>	
			☐Thermal Cup Specifications:	
			☐Keeps warm and cold, can be filled with water to keep warm	
			☐Sealed and leak-proof, heat insulation and scalding	
			☐Hook and handle- easy to take	
			☐500 mL Portable Stainless Steel Food Thermal Insulated Container	
			☐Leakproof Thermal Cup Vacuum Flasks	
			☐Material: 304 stainless steel+PP+PS+silicone	
			☐Size: 15*9.6cm	
			☐Color: yellow/blue/red	
109	packs	10	<b>Sterile Speciment/Reagent Cup with Lid</b>	
			☐Sterile speciment/reagent cup with lid	
			☐60ml capacity with built in plastic spoon	
			☐leak free	
			☐6 pieces/pack	
			<b>Rebidding(GOODS-21-52)</b>	
110	pack	1	<b>1X Dulbecco's Modified Eagle Medium (DMEM)</b>	
			For cell culture: mammalian suitable	
			Components: 4.5g/L D-Glucose, L-glutamine, 110mg/L Sodium pyruvate	
			Pack of 10 bottles, 500mL per bottle	
			Sterile filtered	
111	boxes	3	<b>3 layer Non-woven surgical face mask, at least 50 pcs. per box</b>	
			3 layer Non-woven surgical face mask	
112	packs	3	<b>5000 ul pipette tips (Neutral), at least 1000 pcs. per pack</b>	
			☐5000 ul pipette tips (Neutral)	
113	pack	1	<b>Activated Acid-washed Charcoal</b>	
			☐Chemical must be plant tissue culture tested for at least 20 years	

			☑ISO complaint
			☑ACS REAG
			☑PH EUR
			☑meets USP Standards
			☑Bioreagent suitable for cell culture
			☑2.5kg per pack
114	pack	1	<b>Blot Filter paper, at least 8.6 x 13.5 cm</b>
			☑Material: Filter paper from 100% cotton fiber
			☑For blotting applications as part of the gel, membrane, and filter paper stack, or sandwich
			☑Dimension: at least 8.6 x 13.5 cm
			☑Pack of at least 50 sheets
115	boxes	14	<b>Filter Paper, 12.5 cm. Ashless #42 or equivalent</b>
			Pore size:2.5µm
			at least 100 pcs. per box
116	packs	2	<b>Grade 1 Qualitative Filter Paper, Diameter: 12.5cm, Pore Size: 11µm, at least 100 pcs./pack</b>
			☑Grade 1 Qualitative Filter Paper, Diameter: 12.5cm, Pore Size: 11µm
117	boxes	20	<b>Ice Box Cooler, 110 Liters</b>
			Plastic Cooler Box 110 Liters, 100 kg capacity L-69 x W-49 x H-56 cm with drain system 72 hours insulation time UV resistant Impact resistant Food grade; Color: Blue
			
118	pcs	2	<b>Lab Gown Long Sleeves M</b>
			☑Lab Coat High-quality White
			☑Long Sleeves
			☑Medium size
119	pc	1	<b>Laboratory Hot Plate Magnetic Stirrer</b>
			• Max. heating temperature is 380°C
			• High resolution LCD displays actual temperature and speed
			• Brushless DC motor is maintenance free
			• Aluminum cover with ceramic work plate, allows for immediate heat transfer
			• External temperature control is possible with temperature sensor PT1000
			• Digital temperature control with max. temperature at 380°C
			• Digital speed control with max. speed up to

			1500rpm
			• Max. stirring quantity of H2O at 5L
			Work plate Dimension: 140x140mm
			Work plate material: Aluminum cover with ceramic coating
			Motor type: Brushless DC motor
			Motor rating input: 2.4W
			Motor rating output: 1.8W
			Power: 510W
			Heating output: 500W
			Voltage: 100-120/200-240V 50/60Hz
			Stirring positions: 1
			Max. stirring quantity[H2O]: 5L
			Max. magnetic bar[length]: 50mm
			Speed range: 200-1500rpm
			Speed display: LCD
			Temperature display: LCD
			Heating temperature range: Room temp.+5°C - 380°C
			Over heat Protection: 420°C
			Temperature display accuracy: ±0.1°C
			External temperature sensor: PT1000 (accuracy ±0.5°C)
			Control accuracy of sensor: ±20rpm
			Protection class: IP21
			Dimension [W x D x H]: 320x180x108mm
			Weight: 2.2kg
			Permissible ambient temperature and humidity: 5-40°C 80%RH
120	boxes	2	<b>Laboratory Weighing Boats</b>
			<i>Plastic, 100 mL;</i>
			at least 100 pcs. per box
121	packs	5	<b>Resealable Plastic Bag, Large</b>
			<i>resealable plastic bag, zip lock, 340 mm x 450 mm (13" x 18"), 100 pcs per pack</i>
122	packs	7	<b>Resealable Plastic Bag, Medium</b>
			<i>resealable plastic bag, zip lock, 140 mm x 200 mm (5 1/2" x 7 1/2"), 100 pcs per pack;</i>
123	btls	2	<b>Reversible Protein Stain Kit for PVDF Membranes</b>
			<i>Molecular biology grade Colorimetric in-blot detection method Contains sensitizer, reversible stain, destaining agent, and stain eraser Sufficient for at least 10 PVDF membranes from mini gels Kit for at least 10 PVDF membranes, Bottle of 1.75L ;</i>
124	pcs	110	<b>Stainless Steel Trays, for Laboratory Use</b>
			<i>(L 36 cm x W 27 cm); (Depth 6.5 cm);</i>
125	btls	170	<b>Sterile Water for Injection, 100ml per bottle</b>

			<i>Other Specification:; Parental Sterile Non-Pyrogenic Diluent;</i>	
126	boxes	10	<b>Gloves, Nitrile, Large</b>	
			☐Glove Type: Chemical Resistant Disposable Gloves	
			☐Glove Material: Nitrile	
			☐Powder-Free	
			☐1 box of 100 or 50 pairs	
			☐Food Safe	
			☐Size: large	
127	pcs	2	<b>Laboratory Glass Dyeing Cylinder Rack with Cover (Circular)</b>	
			☐with cover	
			☐5 circular	
128	packs	3	<b>Sterile Syringe Filters Nylon 25 mm Diameter 0.45 um Pore Size Individually Packaged 10/pk</b>	
129	boxes	15	<b>Styrofoam Box Z1</b>	
			☐8..5 x 8.5 x 6.75 inches	
130	packs	3	<b>Herbarium Mounting Paper</b>	
			<i>Desired product: Carolina Biological Supply Herbarium Mounting Paper</i>	
			<i>Specifications:</i>	
			<i>Acid-free: Yes</i>	
			<i>Size (LxW) : 11-1/2 x 16-1/2".</i>	
			<i>Thickness: 188 mm</i>	
131	packs	2	<b>Microcentrifuge</b>	
			<i>Desired product: Eppendorf Tube® 5.0 mL (EP-00301)</i>	
			<i>Specifications:</i>	
			<i>Cap Type: Snap Cap</i>	
			<i>Capacity: 5.0 milliliters</i>	
			<i>Length: 54 millimeters</i>	
			<i>Material: Polypropylene (PP)</i>	
			<i>Autoclavable: Yes</i>	
			<i>Temp range: +121 °C to -196 °C.</i>	
			<i>Color: clear</i>	
132	pcs	5	<b>Temperature-Humidity Data Logger</b>	
			☐Portable and hand-held	
			☐16000 data recording capacity.	
			☐Adjustable record interval: 10s~24hour	
			☐Multi-function LCD	
			☐Internal NTC temperature thermal sensor with optional external sensor	
			☐Data export in PDF/EXCEL via data management software	
			☐Selectable °F/°C temperature unit	
			☐Size: approx. 84 (L) x 44(W) x 20 (H) mm	

			☑ Good quality
			☑ Durable
133	unit	1	<b>Portable Oxygen Monitor</b>
			☑ Personal single gas monitor designed for protection in workspaces where liquid nitrogen is used.
			☑ Portable/pocket size
			☑ Lightweight
			☑ IP-67 waterproof rating
			☑ Audible/visual/vibration alarms
			☑ Automatic backlight
			<b>Rebidding (GOODS-22-08)</b>
134	btl	1	<b>L-Glutamine, ≥99% (HPLC), 100g</b>
			☑ ≥99% (HPLC grade)
			☑ 100g per bottle
135	btl	1	<b>6-Benzylaminopurine, 5g/btl</b>
			☑ suitable for plant cell culture
136	btl	1	<b>D-Pantothenic acid hemicalcium salt, 5g</b>
137	gallons	2	<b>95% Ethyl Alcohol, Technical Grade (Gallon)</b>
138	Kilo	1	<b>Agar Agar</b>
139	pcs	3	<b>Stirring Rod</b>
			☑ big size, 10 inches long
			☑ fire polished ends with no policeman
140	btls	6	<b>Barfoed's Reagent Solution 1000mL</b>
			☑ Technical Reagent Grade
			☑ 1000mL per bottle
141	liters	4	<b>Glycerine</b>
			☑ Glycerine Technical Grade
			☑ 1L/bot.
142	btl	1	<b>Canada Balsam, for microscopy, 100ml</b>
143	pcs	6	<b>Coplin Jar with cover</b>
			Specification:
			Internal Width (in) 1 11/64
			Internal Height (in) 2 61/64
			Internal Depth (in) 1 11/64
			Internal Width (cm) 3
			Internal Height (cm) 7.5
			Internal Depth (cm) 3
144	btl	1	<b>Safranin O Solution</b>
			☑ 250ml
145	canisters	2	<b>Ethyl Alcohol (95%)</b>
			Container size: Plastic waterjug (20L)
146	pack	1	<b>Proteinase K</b>
			Molecular biology grade, DNase-Free, RNase-Free
			For general digestion of proteins

			Lyophilized form	
			Pack of at least 100mg with appropriate buffer	
147	btl	1	<b>Sodium dodecyl sulfate (SDS)</b>	
			☐Molecular biology grade, at least ≥99.0% assay quality	
			☐Suitable for protein analysis and electrophoresis	
			☐Dnase-free and Rnase-free	
			☐Phosphatase-free and proteases-free	
			☐Bottle of at least 500g	
148	kls	2	<b>Ammonium Nitrate</b>	
			☐AR grade; at least 98% purity	
			☐Molecular Wt. 80.043 grams per mol.	
			☐1kg/pack	
149	packs	2	<b>Mannitol (AR)</b>	
			Formula: C <sub>6</sub> H <sub>14</sub> O <sub>6</sub>	
			Molecular Wt. 182.172g/mol.	
150	packs	2	<b>Sorbitol (AR)</b>	
			Chemical Formula: C <sub>6</sub> H <sub>14</sub> O <sub>6</sub>	
			Molecular Wt. 182.172 g/mol.	
151	btls	2	<b>Agar Powder</b>	
			for plant tissue culture, 1kg	
152	gm	1	<b>Ethylmethanesulfonate, EMS</b>	
			- a mutagenic chemical	
			Molecular Weight: 124.16 g/mol	
			Molecular Formula: C <sub>3</sub> H <sub>8</sub> O <sub>3</sub> S	
153	btls	2	<b>Potassium phosphate monobasic, KH<sub>2</sub>PO<sub>4</sub></b>	
			Analytical grade	
			Use for enzyme buffers and chemical assays	
			Bottle of 500g	
154	bot	1	<b>Casein Hydrolysate</b>	
			Product Description:	
			Casein Hydrolysate is used as a general purpose culture medium.	
			Appearance: Yellow colored homogeneous free flowing powder	
			Gelling: Firm, comparable with 1.5% Agar gel	
			Colour and Clarity of prepared medium: Light to medium amber coloured, clear to slightly opalescent gel forms in Petri plates.	
			Reaction : Reaction of 3.55% w/v aqueous solution at 25°C. pH : 7.8±0.2 pH 7.60-8.00	
			Packaging: 500grams/bottle	
155	boxes	2	<b>Gloves, Nitrile, Medium</b>	
			☐Glove Type: Chemical Resistant Disposable Gloves	
			☐Glove Material: Nitrile	
			☐Powder-Free	

			■ 1 box of 100 or 50 pairs	
			■ Food Safe	
			■ Size: Medium	
156	liters	7	<b>Ethyl Alcohol (95%) (Tech)</b>	
157	boxes	3	<b>Filter Paper, 12.5 cm. Ashless #42 or equivalent</b>	
			Pore size: 2.5um at least 100 pcs. per box	
158	kgs	4	<b>Ammonium Acetate, AR</b>	
159	packs	2	<b>Copper Sulphate, 500 grams/pack</b>	
160	pcs	150	<b>Polyethylene bags</b>	
			4 x 4 x 8"	
161	btls	1	<b>Sodium Hydroxide, Technical grade, 5kg/pack</b>	
162	bot	1	<b>Potassium Dihydrogen phosphate (100g)</b>	
163	sets	6	<b>Separatory Funnel with Ring Stand</b>	
			Borosilicate glass	
			With stopper and cap material	
			With lab compatible lap support stand	
			With compatible ring clamp	
			Size: 1L	
164	pcs	12	<b>Amber Reagent Bottle, 100mL</b>	
			With Stopper/Screw Cap	
			Material: Glass/Borosilicate Glass	
			Capacity: 100mL	
165	pcs	12	<b>Amber Reagent Bottle</b>	
			With Stopper/Screw Cap	
			Material: Glass/Borosilicate Glass	
			Capacity: 50mL	
166	pcs	2	<b>Heating Mantle</b>	
			■ 220V 500mL/1L/2L Heating Mantle & Magnetic Stirrer Stirring Temperature Regulation Digital Display Lab Electric Sleeve - 2L	
167	pcs	6	<b>Anti-static Cleaning Brush</b>	
			Ideal for balance and lens cleaning	
			For cleaning sensitive surfaces and at the same time removing any existing static charge	
			Material: Mixture of natural fibers and conductive synthetic fibers	
168	pcs	6	<b>Swivel head bottle/flask brush</b>	
			Ideal for a round-bottom flask or rotary flask	
			Head of brush swivels, reaching intricate curves and corners	
			Natural bristles set in wood will not scrape the cleaned surface	
			Head fits into any container with a neck diameter of at least 24 mm (1 in.) or more.	



			Reach into deep vessels with utmost 33 cm (13 in.) hardwood handle	
169	packs	3	<b>Centrifuge Tube Brush</b>	
			For centrifuge tubes	
			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water	
			Length: at least 12 inches	
			Brush size diam. x L: utmost 1 1/2 in. x 4 1/2 in.	
			Pack of 4 brushes	
170	packs	3	<b>Pipette Brush</b>	
			For pipette tips	
			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.	
			Length: at least 17 inches	
			Brush size diam. x L: utmost 3/16 - 3/4 in. x 7 1/2 in.	
			Pack of 4 brushes	
171	packs	3	<b>Narrow Tube Brush</b>	
			For narrow tubes	
			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.	
			Length: at least 12 inches	
			Brush size diam. x L: utmost 1/2 in. x 3 in.	
			Pack of 4 brushes	
172	packs	6	<b>Micro Tube Brush</b>	
			For microcentrifuge tubes	
			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.	
			Length: at least 7 inches	
			Brush size diam. x L: utmost 3/16 - 1/2 in. x 3 in.	
			Pack of 4 brushes	
173	pcs	3	<b>Flask Brush</b>	
			For flasks	
			Material: natural bristles	
			Stiff of at least 4 1/2 x 13/4 in.	
			Brush mounted on a preformed, plastic handle that adapts itself to the curvature of the flask.	
			Overall Length: at least 16 in.	
			Fits through at least 24/40 joints.	
174	packs	3	<b>Cylinder Brush</b>	
			For cylinders	

			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.
			Length: at least 20 inches
			Brush size diam. x L: utmost 2 3/8 in. x 6 in.
			Pack of 4 brushes
175	packs	3	<b>Test Tube Brush</b>
			For test tubes
			Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water.
			Length: at least 10 inches
			Brush size diam. x L: utmost 1 3/8 in. x 4 in.
			Pack of 4 brushes
176	units	4	<b>Pipette Filler</b>
			Compatible with most plastic and glass pipettes from 0.1 to 100mL
			Eight speeds of selection for aspiration and dispensing
			LCD display shows low battery warning and speed setting
			Powerful rechargeable Li-ion battery enables 8h runtime
			Enables single-handed operation with minimum effort
			0.45µm replaceable hydrophobic filter
177	pcs	12	<b>PCR Tube Rack with Cover</b>
			For PCR tubes storage
			Material: PP Autoclavable. Convenient Polypropylene
			Rack for 0.2 ml PCR tubes strips and plates.
			This rack is stackable with or without lid.
			Capacity: 96
178	units	12	<b>Centrifuge Rack, Multifunction</b>
			For storage and general-purpose
			Fit for 10mL, 15mL, 50mL centrifuge tubes
			The centrifuge tube rack can be disassembled and easily assembled.
			The centrifuge tube rack after assembly has two layers
			Holds 30 pcs of 15 mL tubes and 20 pcs of 50mL tubes
179	pcs	24	<b>Glass Centrifuge Tubes, 10mL</b>
			Glass centrifuge tube with screw cap, heavy wall
			Form: Round bottom
			Material: Borosilicate glass
			Capacity: 10mL with graduation
180	pcs	24	<b>Glass Centrifuge Tubes, 50mL</b>

			Glass centrifuge tube with screw cap, heavy wall
			Form: Round bottom
			Material: Borosilicate glass
			Capacity: 50mL with graduation
181	units	6	<b>Laboratory Safety Goggles</b>
			Chemical and heat resistant
			Anti-fog clear polycarbonate lens
			Soft, flexible PVC body molds to facial contours for a comfortable fit
			Resist a broad range of chemicals
			Circular vents allow air to flow freely through the goggle body
			Meet ANSI™ Z87.1-2010 or equivalent
182	units	3	<b>Mini-spin Centrifuge</b>
			Control mode: Power direct drive
			Max. relative centrifuge force: at least 3000 xg
			Max. rotational speed: at least 7000rpm
			Rotor capacity and accessories: inclusions
			Angled rotor 0.2/0.5/1.5/2 ml*12
			PCR rotor 0.2ml*12*4
			Rotor for PCR plates
			Max speed acceleration/reduction: ≤12s /≤15s
183	pcs	20	<b>Laboratory Stool/Chair, Wheeled</b>
			Anti-static stool
			Adjustable height: at least 40-60 cm
			Weight capacity: at least 300lbs
			Ergonomic with hip to mid-waist level back support
			With round footrest/ foot ring
			Anti-slip seat material: Rugged polyurethane
			No. of wheels: 5
			Standard style w/polished aluminum base: 20"-30"
			Seat shape: Round
			Color: Black
184	pcs	20	<b>Laboratory Stool/Chair, Goblet Foot</b>
			Anti-static stool
			Adjustable height: at least 40-60 cm
			Weight capacity: at least 300lbs
			Ergonomic with hip to mid-waist level back support
			With round footrest/ foot ring
			Anti-slip seat material: Rugged polyurethane
			No. of goblet foot 5
			Standard style w/polished aluminum base: 20"-30"
			Seat shape: Round
			Color: Black

185	units	12	<b>Wall-mounted Cupboard/Cabinet</b>	
			Purpose: Laboratory storage cabinet	
			Material: High quality galvanized steel sheet	
			Surface: Electro sprayed with epoxy-resin	
			Door panel: High quality galvanized steel with Glass Door	
			Dimension: at least 1240 x 380 x 570 mm	
			Doors: 3-door cabinet	
			Layer per door: one removable shelf	
			Color: must be WHITE	
			On-site installation included	
186	units	12	<b>Mobile Pedestal Cabinet, Four-drawers</b>	
			Purpose: Laboratory storage cabinet	
			Material: High quality galvanized steel sheet	
			Surface: Electro sprayed with epoxy-resin	
			Dimension: "must" 700 x 530 x 560 mm - the same with existing cabinet	
			Division: Four-drawers	
			Footing: Lock/unlock caster wheels	
			Color: must be WHITE	
			On-site installation included	
187	units	12	<b>Mobile Pedestal Cabinet, Single-door cabinet with single drawer</b>	
			Purpose: Laboratory storage cabinet	
			Material: High quality galvanized steel sheet	
			Surface: Electro sprayed with epoxy-resin	
			Dimension: "must" 700 x 530 x 560 mm - the same with the existing cabinet	
			Division: Single-door cabinet with single drawer	
			Footing: Lock/unlock caster wheels	
			Color: must be WHITE	
			On-site installation included	
188	units	12	<b>Microcentrifuge Rack with Cover, Reversible (2 mL/ 1.5 mL)</b>	
			Polypropylene (PP)	
			Autoclavable	
			Excellent rack for benchtop use or freezer storage.	
			Excellent chemical & temperature resistance	
			80/60 well rack capacities:	
			80-Place for 1.5 & 2.0mL tubes	
			60-Place for 0.5 & 0.2mL tubes	
			With lid or cover	
189	packs	6	<b>Floating Microtube Racks</b>	
			Polypropylene racks keep microtubes submerged in a water bath.	
			Polypropylene construction	

			Detachable
			Ideal for controlling sample temperature
			Round Racks of 1.5 and 2.0 ml
			Capacity: 20 tubes
			Pack of 4 floating racks
190	units	12	<b>Mortar and Pestle, Heavy Duty</b>
			Mortars with spout
			Material: Porcelain for both mortar and pestle
			Inside grinding surface unglazed
			Capacity: 145 mL, 90 x 70 mm
			Heat and cold resistant
191	packs	6	<b>Amber Injection Glass Vials with cover, 2mL</b>
			Screw top vial, 2 mL
			Amber, write-on spot with cover
			Autoclavable
			Compatible with Agilent HPLC Sampler
			Pack of 100 vials
192	packs	6	<b>Amber Injection Glass Vials with cover, 4mL</b>
			Screw top vial, 4 mL
			Amber, write-on spot with cover
			Autoclavable
			Compatible with Agilent HPLC Sampler
			Pack of 100 vials
193	pcs	4	<b>Vortex Mixer, 220V, 2800RPM</b>
194	units	3	<b>Liquid Nitrogen Storage/Transfer Vessel</b>
			N2 Transfer Vessel
			Capacity: 10L
			Lightweight aluminum dewars assure low-static evaporation rates
195	gal	1	<b>Alcohol, Denatured</b>
196	pc	1	<b>Mortar and Pestle (small)</b>
197	pcs	1	<b>Lab Gown Long Sleeves L</b>
			■ Lab Coat High-quality White
			■ Size- Large; long sleeves
198	pack	1	<b>Laboratory Weighing Boats</b>
			Plastic, 100 mL
			at least 100 pcs. pack
199	pc	1	<b>Lab Gown Long Sleeves M</b>
			■ Lab Coat High-quality White
			■ Long sleeves
			■ Medium Size
200	packs	3	<b>Weighing Paper Sheet, Non-Absorbing</b>
			High-Gloss Pack of 500
201	pcs	3	<b>Reagent Bottles</b>
			■ Amber Glass Wide Mouth Bottle Chemical Reagent Storage Bottles

			■250 ML capacity
			■Features:
			—Glass body for chemical, thermal expansion, shock, and heat resistance.
			—Amber glass bottles are perfect for storing materials which are sensitive to degradation from light.
			—Wide mouth, cylindrical shape body for a wide variety of applications that require solution containment.
			—Ground glass stopper seals the bottle to secure contents and help prevent spills and evaporation.
			—Useful for storing both liquids and powders, widely used in chemistry and biology application
202	pcs	3	<b>Graduated Cylinder, Plastic, 1000mL</b>
			Plastic, 1000ml (1L) capacity for Particle Size Analysis
203	pcs	7	<b>Solar Charge Controller</b>
			Voltage: DC 12V/24V
			Rated charge current: 30A
			Max. PV Voltage: 50V
			Max. PV Input power: 12V: 130W-650W, 24V: 260W-1200W
			Charge Current: 10A-50A
			Discharge current: 10A-50A
			Max solar input: <50A
			Self-consume: <10mA
204	pcs	2	<b>Brush for cleaning 250mL Erlenmeyer Flask</b>
			■Bristle Color: White Bristle
			■Brush+Handle Length: 12"
			■Brush Diameter: 1 3/8"
			■Brush Length: 3 1/2"
			■Suitable for cleaning 250mL Erlenmeyer Flask
205	pcs	2	<b>Reagent Bottle</b>
			■With Stopper/Screw Cap
			■Material: Glass/Borosilicate Glass
			■Color: Clear/Transparent Flask
			■Capacity: 2000mL
			■Graduation: 1800mL
206	btls	6	<b>Labware Detergent or Laboratory Dishwashing Liquid</b>
			■Suitable for manual, ultrasonic, and machine washing
			■Completely biodegradable
			■Free of phosphate, chlorine, enzyme, and EDTA
			■Contains anionic and cationic surfactants
			■5 liters per bottle (atleast 2.5L/bot)

			<b>Rebidding(GOODS-22-01)</b>	
207	unit	1	<b>Laboratory Dishwasher</b>	
			Description: Laboratory Dishwasher for glassware	
			Specs:	
			Labware Type: Glassware	
			Door Style: Solid Door	
			Configuration: ADA Undercounter	
			Integral Heater: Yes	
			Electrical Specifications: 115 V, 16 A, 1 Ph, 60 Hz	
			Placement: Free standing	
			Water temperature: up to 93° C	
			size (60m stainless steel; placement (freestanding);	
			with built-in display (LED);	
			water consumption (10L);	
			service capacity (more than 12);	
			energetic calification (A);	
			installation type (integrated)	
			Inclusions:	
			Installation	

## ***Section VIII. Checklist of Technical and Financial Documents***



# Checklist of Technical and Financial Documents

## I. TECHNICAL COMPONENT ENVELOPE

### *Class “A” Documents*

#### Legal Documents

- ☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);  
**or**
- ☐ (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document,  
**and**
- ☐ (c) Mayor’s or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;  
**and**
- ☐ (d) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

Note: If the bidder submits item (a), bidder may not submit requirements (b), (c) & (d).

#### Technical Documents

- ☐ (f) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- ☐ (g) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid in the amount of *at least 25% of the ABC or at least Seven Hundred Seventy Thousand Thirty-Four and 75/100 Pesos (PhP 770,034.75)*;  
**or**  
Statement of at least two (2) similar completed contracts, the aggregate amount of which should be equivalent to *at least 25% of the ABC or at least Seven Hundred Seventy Thousand Thirty-Four and 75/100 Pesos (PhP 770,034.75)* and the largest of these similar contracts must be equivalent to at least half of the said aggregate amount or *at least Three Hundred Eighty-Five Thousand Seventeen and 38/100 Pesos (PhP 385,017.38)*; **and**
- ☐ (h) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;  
**or**  
Original copy of Notarized Bid Securing Declaration; **and**
- ☐ (i) Conformity with the Technical Specifications; **and**
- ☐ (j) Schedule of Requirements/production and delivery schedule; **and**
- ☐ (k) Manpower requirements; **and**
- ☐ (l) After-sales service/parts; **and**

- ☐ (m) Original duly signed Omnibus Sworn Statement (OSS); **and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

- ☐ (n) The Supplier's audited financial statements, showing, among others, the Supplier's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; **and**
- ☐ (o) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC) – at least equal to ABC (**PhP 3,080,139.00**);  
**or**  
A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation (at least 10% of ABC or **PhP 308,013.90**).

**II. FINANCIAL COMPONENT ENVELOPE**

- ☐ (a) Original of duly signed and accomplished Financial Bid Form; **and**
- ☐ (b) Original of duly signed and accomplished Price Schedule(s).

**Guidelines on the Preparation of Electronic Bid (e-Bid)**  
**(for bidders who prefer electronic bid submission)**

1. Convert all documents into Portable Document Format (PDF) and should be printable.
2. Properly label all documents for prompt identification. Filename of documents, whichever are applicable to the bidder, should be as follows:

<b>Document</b>	<b>Filename (in PDF form)</b>
1. PhilGEPS Certificate of Registration (Platinum)	PhilGEPS
2. Registration Certificate (SEC/DTI)	Registration Certificate
3. Mayor's/Business Permit	Mayor's-Business Permit
4. Tax Clearance	Tax Clearance
5. Statement of On-Going Government & Private Contracts	Statement of On-Going Contracts
6. Statement of Bidder's Single Largest Completed Contract	SLCC
7. Statement of at least two (2) similar completed contracts	Statement of Completed Contracts
8. Bid Security	Bid Security
9. Technical Specifications	Technical Specifications
10. SCHEDULE of Requirements/Production and delivery schedule	Schedule of Requirements
11. Manpower Requirements	Manpower Requirements
12. After Sales service/parts	After Sales
13. Omnibus Sworn Statement	Omnibus Sworn Statement
14. Audited Financial Statements	Audited Financial Statements
15. Net Financial Contracting Capacity	NFCC
16. Committed Line of Credit	CLC
17. Bid Form	Bid Form
18. Price Schedule	Price Schedule

3. Create two (2) folders that are password-protected. The first folder should contain all requirements under Technical Component checklist as presented under Section VIII. The second folder should contain all requirements under Financial Component checklist.
4. Compress the two (2) folders and name as follows: a) first folder: **Technical Documents**, b) second folder: **Financial Documents**.
5. Email the 2 compressed folders to Ms. Jessamine C. Ecleo at [jessamine.ecleo@vsu.edu.ph](mailto:jessamine.ecleo@vsu.edu.ph) before the deadline (March 9, 2022; 8:30 AM).



**VISAYAS**  
STATE UNIVERSITY

