



BID BULLETIN 01

Date: 01 June 2021
Project Title: Supply and Delivery of Laboratory Equipment and Supplies
(GOODS-21-25)
Location: VSU Main, Visca, Baybay City, Leyte

Bidders are hereby informed/reminded of the following addendums/amendments/clarifications:

I. LIST OF REQUIREMENTS

(1st Envelope) TECHNICAL COMPONENT ENVELOPE	
<i>Legal Documents</i>	
1	PhilGEPS Certificate of Registration (Platinum)
	or
	a. Registration Certificate (SEC, DTI or CDA)
	b. Mayor's/Business Permit
	c. Tax Clearance
<i>Technical Documents</i>	
2	Statement of All On-Going Government & Private Contracts
3	Statement of Bidder's Single Largest Completed Contract (at least 50% of the ABC or Php 5,032,832.00)
	Or
	Statement of at least two (2) similar completed contracts w/ total amount of at least Php 5,032,832.00 and the largest of which should be at least Php 2,516,416.00 .
4	Bid Security
5	Technical Specifications
6	SCHEDULE of Requirements/Production and delivery schedule
7	Manpower Requirements
8	After Sales service/parts from acceptance of delivered goods (at least 1 year for equipment and 3 months for supplies)
9	Original Duly Signed Omnibus Sworn Statement
<i>Financial Documents</i>	
10	The Supplier's Audited Financial Statements
11	Net Financial Contracting Capacity (at least Php 10,065,664.00)
	Or
	Committed Line of Credit (at least Php 1,006,566.40)
(2nd Envelope) FINANCIAL COMPONENT ENVELOPE	
12	Original of duly signed and accomplished Financial Bid Form
13	Original of duly signed and accomplished Price Schedule(s)



Please take note:

In the **Technical Specifications**, bidders must state either “Comply” or “Not Comply” **against each of the individual parameters of the specifications** per item stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” must be supported by evidence in the **Bidders Bid** and cross-referenced to that evidence. Evidence shall be in the form of **manufacturer’s un-amended sales literature (Data Sheets), unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data, and Brand and Model** 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 Bidders 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 provisions of **ITB** Clause 3.1(a)(ii) and/or **GCC** Clause 2.1 (a)(ii).

II. Preparation of Electronic 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:

Document	Filename (in PDF form)
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** before the deadline.

III. Changes in the Bidding Documents

Original	Amendment
5. A complete set of Bidding Documents may be acquired by interested Bidders on 20 May – 09 June 2021 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 Twenty-Five Thousand Pesos (PhP 25,000.00). The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person, by facsimile, or through electronic means.	<p>5. A complete set of Bidding Documents may be acquired by interested Bidders on 20 May – 09 June 2021 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 Twenty-Five Thousand Pesos (PhP 25,000.00). The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person, by facsimile, or through electronic means.</p> <p>The Bidders may deposit the payment for the bidding documents to the Visayas State University Landbank Account with the following details:</p> <p>Account Name: Visayas State University Fund 164</p> <p>Account Number: <u>3572-1000-13</u></p> <p>Then send the deposit slip to jessamine.ecleo@vsu.edu.ph</p>



IV. Revised List of Goods and Technical Specifications

- Some Specifications were added (in **red** font) and/or deleted (in **blue** font)
- Some Quantities and Unit Prices (ABC) were changed

Item No.	Item Description and Specifications	Unit	Qty	ABC/Unit	Total ABC
1	Temperature Data Logger	pcs	5	900.00	4,500.00
	☐High accuracy temperature logger				
	☐Logger can be connected to the PC				
	☐via USB for data import and export to excel or pdf.				
	☐Temperature & Humidity Monitoring				
	☐Measures material moisture				
2	Stirring Rod	pc	9	50.00	450.00
	☐Standard Size				
	☐Good Quality				
	☐with rubber policeman				
3	Erlenmeyer Flask	pc	29	400.00	11,600.00
	☐Material: Glass/Borosilicate Glass				
	☐Capacity: 250mL				
	☐Good Quality				
4	Petri Dish	pc	12	200.00	2,400.00
	☐comprise a lid and base				
	☐high clarity glass				
	☐borosilicate glass				
	☐size:				
	◀Cover int. dia mm : 95				
	◀Base ext. dia mm: 94				
	◀Size: 100 x 20				
5	Styrofoam Box Z1	box	10	180.00	1,800.00
	☐8.5 x 8.5 x 6.75 inches				
6	Pipette Tip Holder Box 28 Vents	box	4	1,000.00	4,000.00
	☐For use with 5ml pipette tips				
7	Pipette Tips 5ml	packs	2	1,400.00	2,800.00
	☐100 pcs of 5-ml pipette tips per pack				
	☐7-slot universal Pipette Carousel Stand				
8	Contact cleaner	pcs	10	350.00	3,500.00
	☐Anti-rust				
	☐Wet-type Lubricant				
	☐Spray-type				
	☐Penetrating-type				
	☐360ml/can				
9	Methanol	gallon	1	2,500.00	2,500.00
	☐AR grade				
10	Alcohol, Ethyl, 70% solution, 1 gallon	gallons	14	600.00	8,400.00
11	Reagent Bottles	btls	2	500.00	1,000.00
	☐Autoclavable				



	☐amber bottle with ground glass cover				
	☐250 mL capacity				
	Material: Borosilicate Glass				
12	Lactophenol Cotton Blue Solution	btl	1	2,500.00	2,500.00
	☐250ml per bottle				
13	Polyethylene Glycol (PEG) 6000,	btl	1	700.00	700.00
	☐250g per bottle				
14	Safranin O Solution	btl	1	1,800.00	1,800.00
	☐250ml per bottle				
15	IAA (Indole-3-Acetic Acid),	btl	1	4,500.00	4,500.00
	☐500g per bottle, AR				
16	Sodium bromide, NaBr	btl	1	1,500.00	1,500.00
	☐250g/bottle, AR				
	Chemical property- Sodium bromide is a colorless cubic crystal or white granular powder. It is odorless, and has slightly bitter and briny taste but high toxicity. It is easily soluble in water (at 100 °C, the solubility in 100ml water solubility is 121g), but slightly soluble in alcohol.				
	☐Specifications:				
	◀Appearance: White, Crystalline Solid				
	◀Assay: ≥99%				
	◀Chloride: ≤1.0%				
	◀Loss on Drying: ≤0.5%				
	◀Sulfate: ≤0.05%				
	◀pH value: 6.5~8.5 (5% @ 72 °F)				
17	Magnesium chloride, MgCl₂	btl	1	3,000.00	3,000.00
	☐1kg per bottle				
	☐colorless crystalline solid				
	☐Properties:				
	◀Quality Level: 300				
	◀Grade: anhydrous				
	◀Assay: ≥98%				
	◀Form: powder				
	◀Impurities: ≤0.5% Insolubles				
	◀bp: 1412 °C/1 atm (lit.)				
	◀mp: 714 °C (lit.)				
	◀Density: 2.32 g/mL at 25 °C (lit.)				
18	Petroleum Ether, AR	gallon	1	3,500.00	3,500.00
19	pH Meter	pcs	1	2,500.00	2,500.00
	☐0.1 pH resolution				
	☐water-resistant/proof				
	pen type				
20	Burette Brush	piece	2	150.00	300.00
	☐big size for 50 mL burette				



21	Filter Paper, 12.5 cm. Ashless #42, 100pcs. per box	boxes	4	1,800.00	7,200.00
22	1 kb Plus DNA Ladder	btl	1	7,700.00	7,700.00
	☐1ml per bottle				
23	Agarose LE	btl	1	5,680.00	5,680.00
	☐100g per bottle				
24	CTAB	btl	1	3,000.00	3,000.00
	☐500g per bottle, AR				
25	Custom oligo primers	unit	10	1,100.00	11,000.00
	☐HPLC-CE purified				
26	Delicate Task Wipes	boxes	12	120.00	1,440.00
	☐4.4 x 8.4 inches (11 x 21 cm)				
	☐280 sheets/box				
	☐lint-free				
27	LB Agar	btl	1	3,700.00	3,700.00
	☐500g per bottle				
28	Filter Paper	box	6	2,000.00	12,000.00
	☐Filter Paper No.1				
	☐Qualitative Circles 125mm (12.5cm)				
	☐Qty/box: 100 pieces per box				
	☐Porosity: Medium				
	☐Flow Rate: Medium				
29	EDTA	btl	1	6,900.00	6,900.00
	☐500g per bottle				
	☐A.R				
	☐monobasic				
30	PCR loading dye	unit	1	9,600.00	9,600.00
	☐10x, 1 ampule				
31	LB Broth	btl	1	1,150.00	1,150.00
	☐100g/bottle				
32	Gloves, Nitrile, Large	box	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				
33	Gloves, Nitrile, Medium	box	8	500.00	4,000.00
	☐Glove Type: Chemical Resistant Disposable Gloves				
	☐Glove Material: Nitrile				
	☐Powder-Free				
	☐1 box of 100 or 50 pairs				
	☐Food Safe				
	☐Size: Medium				



34	Dropping Bottle	pc	3	900.00	2,700.00
	☐Dropping Bottle, Bulb and Pipette				
	☐With Glass Stopper				
	☐Capacity: 125mL				
	☐Dimension: 5mm diameter and 150mm height				
	☐Material: Borosilicate Glass				
35	Brush Suitable for 10mL Graduated Cylinder	pc	3	200.00	600.00
	☐Bristle Material: Black Nylon				
	☐Suitable for 10mL Graduated Cylinder				
36	Brush Suitable for 50mL Graduated Cylinders	pc	3	200.00	600.00
	☐Bristle Material: Black Nylon				
	☐Suitable for 50mL Graduated Cylinder				
37	Brush Suitable for 100mL Graduated Cylinders	pc	3	200.00	600.00
	☐Bristle Material: Black Nylon				
	☐Suitable for 100mL Graduated Cylinder				
38	Apron	pc	3	3,500.00	10,500.00
	☐Heavy Duty Industrial Chemical Laboratory Apron				
	☐Material: Neoprene				
	☐Color : Black				
	☐Chemical Resistant (Suitable protection against wide range of chemicals)				
	☐Light weight				
	☐Sizes : at least 35" X 43"				
39	Alcohol Burner	btl	2	170.00	340.00
	☐Burner Lamp				
	☐Clear Glass Lab				
	☐150mL				
40	Wash Bottle, 250mL cap.	pc	11	200.00	2,200.00
	☐Material: Plastic (good quality)				
41	Water Quality Test Meter	piece	3	2,000.00	6,000.00
	☐2 in 1 kit, with calibration packets and user's manual				
	◀1 TDS meter				
	◀1 pH meter				
	☐Hand-held and portable, pen-sized				
	☐Color: yellow (pH) + blue (TDS)				
	☐Material: plastic + metal				
	☐Size: length at 15-20cm				
	☐Accurate reading				
	☐Good quality				
	☐Durable				
42	Burette with Rubber Tube, stopper and dropper	pc	2	3,800.00	7,600.00
	☐Burette with Rubber Tube, stopper and dropper				
	☐Material: Glass/Borosilicate Glass				



	☐Capacity: 50mL				
	☐For Base				
43	Burette with Glass Stopcock	pc	2	4,000.00	8,000.00
	☐Burette with Glass Stopcock				
	☐Material: Glass/Borosilicate Glass				
	☐Capacity: 50mL				
	☐For Acid				
44	Temperature-Humidity Data Logger	piece	4	2,000.00	8,000.00
	☐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				
45	Dissolved Oxygen Meter	piece	1	11,000.00	11,000.00
	☐Pen-type, portable, easy to carry and durable				
	☐LCD display for simultaneous display of dissolved oxygen and temperature.				
	☐Highly sensitive probe for fast response and accurate measurement				
	☐Unit switching function, Celsius and Fahrenheit				
	☐Removable probe design, easy to change measurement, equipped with three spare probe covers for intimate protection.				
	☐The pen body design is compact, lightweight, easy to carry and easy to measure.				
	☐Measurement Range: 0.00-20.00mg/L				
	☐Basic Measurement Error: 0.4 mg/L				
	☐Dissolved Oxygen Temperature Compensation: 0-40 degrees Celsius				
	☐Power Supply: 4 LR44 1.5V button batteries				
	☐Color: Blue And Gray				
	☐Dissolved Oxygen Meter: at least 140x40x40mm				
	☐Pen: at least 160x13x13mm				
	☐Lead Length: at least 2930mm				
	☐Probe Length: at least 3090mm				
	☐Full Length: at least 3230mm				
	☐Weight: approximately 253g				
	☐Package Included:				
	◀ 1 x Host				



	◀3 x Probe Covers				
	◀1 x USB Data Cable				
	◀1 x Portable Cloth Bag				
	◀1 x Color Box				
	◀1 x Factory Certificate				
	◀1 x Instruction Manual				
	◀1 x Dissolved Oxygen Filling Solution				
	◀10 x Reagent A				
	◀10 x Reagent B				
46	Laboratory Burette Stand	pc	3	1,000.00	3,000.00
	☑Standard laboratory burette stand				
	☑Good quality White PE Burette Stand				
	☑Heavy duty white polyethylene burette stand comes with a polyethylene coated metal rod which screws into the base.				
	☑Whichever is available, with the hole in the center (center weighted) or at the short edge (edge weighted) as long as the 3 burette stands are the same (ex. if center weighted, then all 3 should be center weighted).				
47	Analytical Balance	pc	1	29,240.00	29,240.00
	☑max capacity 120 g				
	☑readability 0.1mg				
	☑linearity +/- 0.2 mg				
	☑pan size 80 mm dia				
	☑Motor-driven built-in calibration weight				
	☑PSC: touch-key with built-in or external weight calibration mode				
48	Burette clamp	pc	3	1,510.00	4,530.00
	☑Good Quality Double Burette Clamp				
	☑Can Hold 50mL Burette				
49	Micro pipette, with stand, P10 (0.5-10ul)	unit	1	8,060.00	8,060.00
50	Micro pipette, with stand, P1000 (200-1000ul)	unit	1	8,060.00	8,060.00
51	Micro pipette, with stand, P100 (10-100ul)	unit	1	8,060.00	8,060.00
52	Micro pipette, with stand, P200 (20-200ul)	unit	1	8,060.00	8,060.00
53	Micro pipette, with stand, P2 (0.2-2ul)	unit	1	8,060.00	8,060.00
54	Watch Glass	pack	1	1,500.00	1,500.00
	☑Material: Glass/Borosilicate Glass				
	☑Autoclavable: Yes				
	☑Outer diameter: 75 mm (7.5cm),				
	☑fits 250 mL beakers,				
	☑12pcs/pack,				
	☑good quality				
55	Graduated Pitcher	pc	2	1,000.00	2,000.00
	☑material used: Polypropylene				
	☑capacity: 2L				



	☐Design: Pitcher-type (with handle)				
56	Pipette Dropper with Rubber Head	pack	2	400.00	800.00
	☐Pipette Dropper with Rubber Head				
	☐Capacity: 10mL				
	☐Material: Glass/Borosilicate Glass				
	☐12PCS/PACK				
57	Reagent Bottle.	pc	3	300.00	900.00
	☐With Stopper/Screw Cap				
	☐Material: Glass/Borosilicate Glass				
	☐Color: Clear/Transparent Flask				
	☐Capacity: 2000mL				
	☐Graduation: 1800mL				
58	Beaker	pc	9	400.00	3,600.00
	☐250ml Low Form Beaker				
	☐Borosilicate Glass				
	☐Transparent Beaker				
	☐Thickened With Spout				
59	Beaker, Glass	pc	14	380.00	5,320.00
	☐150ml Low Form Beaker				
	☐Borosilicate Glass				
	☐Transparent Beaker				
	☐Thickened With Spout				
60	Graduated Cylinder	pc	2	600.00	1,200.00
	☐Material: Glass/Borosilicate Glass				
	☐Capacity: 250mL				
	☐Good Quality				
61	Graduated Cylinder	pc	2	1,500.00	3,000.00
	☐Material: Glass/Borosilicate Glass				
	☐Capacity: 1000mL (2L)-delete				
	☐Good Quality				
62	Brush for cleaning 250mL Erlenmeyer Flask	pc	3	250.00	750.00
	☐Bristle Color: White Bristle				
	☐Brush+Handle Length: 12"				
	☐Brush Diameter: 1 3/8"				
	☐Brush Length: 3 1/2"				
	☐Suitable for cleaning 250mL Erlenmeyer Flask				
63	Brush Suitable for cleaning 500mL Erlenmeyer Flask	pc	3	250.00	750.00
	☐Bristle Color: White Bristle				
	☐Brush+Handle Length: 14"				
	☐Brush Diameter: 1 1/2"				
	☐Brush Length: 4"				
	☐Suitable for cleaning 500mL Erlenmeyer Flask				
64	Burette with PTFE Stopcock	pc	2	3,800.00	7,600.00



	☐Burette with PTFE Stopcock				
	☐Material: Glass/Borosilicate Glass				
	☐Capacity: 50mL				
65	Multi-Functional LCD Digital Multimeter Auto Range DMM with Temperature Detector DC AC Voltage	unit	25	2,000.00	50,000.00
	☐Large LCD display of 41mm character height				
	☐Measure DC/AC voltage/current, diode, resistance, capacitance, temperature and continuity test.				
	☐Max. display value: 6000.				
	☐Can test the temperature with unit of °C/ °F.				
	☐Includes relative value testing, duty cycle test, data hold, MAX/MIN value hold and auto power off function.				
	☐With overload protection on all ranges.				
	☐Low battery indication and warning alarm function.				
	☐Equipped with a back bracket for supporting multimeter, and also can collect test probe.				
	☐Protected by rubber for drop protection.				
	☐Great for troubleshooting automotive and household electrical problems.				
66	Potassium Chloride	kgs	6	1,500.00	9,000.00
	☐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				
67	Activated Acid-washed Charcoal	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				
68	Ethanol	btl	10	300.00	3,000.00
	☐USP 95% (food grade), 2.5 L				
69	Sodium EDTA dihydrate,	btl	4	5,400.00	21,600.00
	☐Chemical must be plant tissue culture tested for at least 20 years				
	☐ISO compliant				
	☐ACS REAG				
	☐PH EUR				
	☐meets USP Standards				
	☐Bioreagent suitable for cell culture				



	☐250g per bottle				
70	Calcium Chloride Dihydrate	btl	3	2,000.00	6,000.00
	☐Branding the chemical to be purchase is following the protocol set for the project's protocol and standards				
	☐Chemical must be plant tissue culture tested for at least 20 years				
	☐ISO compliant				
	☐ACS REAG				
	☐PH EUR				
	☐meets USP Standards				
	☐Bioreagent suitable for cell culture				
	☐500g per bottle				
71	Naphthaleneacetic Acid, 5g per bottle	btl	5	3,400.00	17,000.00
	☐Branding the chemical to be purchase is following the protocol set for the project's protocol and standards				
	☐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				
72	Potassium Nitrate	packs	15	5,800.00	87,000.00
	☐AR grade				
	☐Formula: KNO ₃				
	☐Molar wt: 101.1032 g/mo				
	☐1kg/pack				
73	Phytigel, Sigma	kl	7	40,000.00	280,000.00
	Branding the chemical to be purchase is following the protocol set for the project's protocol and standards				
	☐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				
74	Analytical Balance, at least 220g capacity	unit	1	53,000.00	53,000.00
	☐4 decimal places				
	☐Automatic Internal Calibration, LCD back-lit display				
	☐Capacity: at least 220g				
	☐Readability: 0.1 mg				
	☐Repeatability (std dev): 0.1 mg				
	☐Linearity (+/-): 0.2 mg				
	☐Pan size (mm/inch): 90 Ø/3.5Ø				



	☑Response time: 3 sec				
	☑Calibration: Perfect Self Auto Calibration (temperature / time /power on)				
	☑Display: Bright LCD Display with LED backlight				
	☑Unit of measure: gram, Milligram				
	☑Tare Range: Full				
	☑Operating Temperature: 10°C to 40°C				
	☑Dimension (WXDXH) mm : 342.5X212x341				
	☑Power Supply: AC Adapter 100V- 240V +/- 20% 50-60Hz				
	☑Net weight with Packing: 8 kgs				
75	Laminar Flow Hood	unit	1	200,000.00	200,000.00
	☑Horizontal				
	☑with HEPA Filters				
	☑UV Germicidal Light				
76	PCR Thermal Cycler	unit	1	250,000.00	250,000.00
	☑Temp Range 0-99°C				
	☑Block Uniformity & Temp Accuracy ±0.5°C				
	☑Sample Capacity 16 well block				
	☑16x0.5 ml tubes				
	☑25 well block: 25x0.2ml tubes or one 25-well microplate				
	☑Electrical Req't : 240V				
77	Orbital shaker	unit	1	53,000.00	53,000.00
	☑Bench top shaker (Medium size)				
	☑Shaking System : Orbital				
	☑Shaking Plate Size (WxD mm) 480x380				
	☑Shaking Rate (RPM) 20 to 300				
	☑Shaking Width (mm) 25				
78	Dispensing pump for culture media	unit	1	60,000.00	60,000.00
	☑Single Pump				
	☑Continuous				
	☑Multi-dose				
	☑(predetermined volume, with a pause between each dose)				
	☑Digital control screen				
	☑Rotating button for easy navigation and program settings				
	☑Compact: only 16 cm wide				
	☑Up to 1% precision				
	☑Dispenses liquid from 50 µL to 99 µL				
	☑Step-by-step instructions on screen				
	☑Calibration possible with chosen volume				
	☑High quality Watson Marlow™ pump heads				
	☑Heavy duty polycarbonate top shell and durable				



	stainless steel				
79	Pressure cooker for laboratory use	unit	1	52,000.00	52,000.00
	☐Heavy Duty, 41.5 quarts				
	☐Professional quality, extra heavy duty cast aluminum construction throughout for fast & even heating				
	☐Stay-cool bakelite top handle				
	☐Geared steam gauge				
	☐Equipped with 2 automatic venting features which provide an extra margin of safety (the safety control valve				
	☐ overpressure plug)				
	☐Pressure regulator weight with settings of 5, 10 and 15 psi				
	☐Smooth, easy to clean satin finish				
	☐Double thickness edges for additional protection on points of heaviest wear				
80	pH meter	unit	1	54,000.00	54,000.00
	☐Digital				
	☐with pH electrode				
	☐with pH 4, 7 and 10 (1L each) pH standard				
	☐Size: Measuring range:0 ~ 14.00pH Accuracy:±0.012pH				
	☐Note:				
	◀Conventional pH measurement used in the experiment room				
	◀accord with the most simple to use.				
	☐Category: Bench Type PH meter				
81	Autoclave High Steam Sterilizer at least 25 Liters capacity	unit	1	200,000.00	200,000.00
	☐(High Pressure Steam Sterilizer) , Automatic, Vertical Autoclave				
	☐Portable, Top-loading Autoclave				
	☐Space-saving design with lid opening upward.				
	☐Dual-sensing lid interlock prevents lid opening when chamber is pressurized or when temperature exceeds 97°C.				
	☐One-touch lever to easily open and close chamber lid				
	☐Door-closure sensor provides a prompt and the cycle will not start unless the door is closed properly.				
	☐In-process display shows status and progress of sterilization cycle				
	☐Agar sterilization mode for sterilizing agar and then automatically maintaining it at liquid temperature				
	☐Sterilization timer is activated only when load temperature reaches set temperature				
	☐Temperature Range: 105°C to 135°C				
	☐Agar warming range: After sterilization, agar can be maintained from 45°C to 60°C (programmable) for up to 24 hours to prevent coagulation.				



	☑Sterilization Timer: 1 to 300 minutes				
	☑Cooling Fan: Switch to turn fan on or off				
	☑Safety Features: Circuit breaker with GFCI, low-water power cut-off, over-temp power cutoff, over-pressure power cut-off, safety valve, sensor for improper lid closing				
	☑Power Requirements: 220V, 50/60 Hz, single phase				
	☑Power Consumption: 3.9 Kw Shipping Weight: 255 lb (116 kg)				
82	Microbead Sterilizer	unit	1	52,000.00	52,000.00
	☑Plain metal cover, glass-cup and glass beads (150g),				
	☑220 or 240 V, 90 W				
	☑Glassbead container: Stainless steel				
	☑Glassbeads (filling portion) : 150g				
	☑Inside dimensions: 3x4cm				
	☑Casing dimensions (HxWxD): 14.4x12.5x14cm				
83	Digital microscope with camera	unit	1	52,000.00	52,000.00
	☑Compound Biological Trinocular Digital Microscopes				
	☑with Camera and Software (2.0MP)				
84	Distilling Apparatus	unit	1	150,000.00	150,000.00
	☑Note: Distilling apparatus in cart is beyond the budget allocated.				
	☑Housing made of stainless steel				
	☑Pilot switch light				
	☑with thermostat				
	☑Distillation capacity L/H; 4				
	☑Water consumption L/Min : 1				
	☑Equipment measures HxWX Depth (mm): 435x370x220				
	☑Heaters: 3000W				
	☑Electricity : 230V-50/60 Hz 13A				
	☑Equipment wt: 8				
85	Boric Acid, Analytical Reagent	kgs	2	1,400.00	2,800.00
86	Dimethyl sulfoxide, Analytical reagent	L	3	2,500.00	7,500.00
87	Calcium Nitrate standard for AAS, Analytical reagent 500ml/btl	btls	1	3,100.00	3,100.00
88	Sodium Hydroxide, Technical grade, 1kg/bottle	kgs	24	100.00	2,400.00
89	Cadmium Nitrate Standard for the AAS	500cc	1	4,000.00	4,000.00
90	ammonium meta vanadate, AR>	gms	1	3,500.00	3,500.00
91	Storage Solution for ROSS electrode	btl	1	5,600.00	5,600.00
	☑Orion application solution				
	☑Orion Cat No. 810001.				
	☑One bottle is 475mL.				
92	ROSS reference electrode filling solution (3M KCl)	pack	1	7,300.00	7,300.00
	☑Orion cat. No. 810007				



	One pack is composed of 5 bottles				
	(60 ml. capacity)				
93	Barium acetate AR	500gms	1	1,800.00	1,800.00
94	potassium antimony tartrate (III) hydrate, AR	gms	1	3,000.00	3,000.00
95	Ethanol	btls	3	1,800.00	5,400.00
	AR, at least 95%v/v, 4L per bottle				
96	Potassium dihydrogen phosphate, AR	500gms	2	500.00	1,000.00
97	Triethanolamine, AR	liters	3	3,000.00	9,000.00
98	Alcohol, Denatured	gallons	7	253.00	1,771.00
99	Test Tube	pieces	12	105.00	1,260.00
	with Screw Cap				
	Glass				
	Graduated, 50mL				
100	Test Tube	pieces	12	100.00	1,200.00
	with Screw Cap				
	Glass				
	Graduated, 20mL				
101	Microscope Slides and cover slips	pieces	11	370.00	4,070.00
	Pre-Cleaned Blank slides with 100 22 x 22 mm square Cover Slip				
102	Vacutainer EDTA Tubes	tubes (box)	2	1,650.00	3,300.00
	blood collection tubes, 2 ml				
	Stainless Steel				
	Single Prong				
	5 inches				
	10 pieces/pack				
103	Sodium Hydroxide, AR 500G	btls	12	800.00	9,600.00
	500 g/bottle, AR, Pellets				
104	Hydrochloric Acid	btl	1	600.00	600.00
	AR grade				
	2.5 liter/btl.				
	36.5-38%				
	impurities <1ppm free chlorine				
105	Drager Aspirator Bulb	pieces	2	200.00	400.00
106	Stirring Rod	pieces	2	100.00	200.00
	big size, => 10 inches long, fire polished ends with no policeman				
107	Glass Jar 12oz	box	15	384.00	5,760.00
	Clear				
	12oz				
	M-7101				
	with cap				



	☐24pcs/box				
108	Glass Jar 8oz	box	15	312.00	4,680.00
	☐Clear				
	☐8oz				
	☐M-7177				
	☐with cap				
	☐24pcs/box				
109	L-Glutamine	btls	2	3,500.00	7,000.00
	☐AR, 100g per bottle				
110	Myo-inositol	btls	3	1,600.00	4,800.00
	☐AR, 100g per bottle				
111	Acetone	gallon	1	1,600.00	1,600.00
	☐AR, 1gallon				
112	Agar (E-406)	btl	1	2,400.00	2,400.00
	☐ Pronadisa-delete				
	☐500g				
	☐For plant tissue culture				
113	Scalpel Handle	pcs	8	70.00	560.00
	☐#4, Stainless steel				
114	Scalpel Blade	box	8	280.00	2,240.00
	☐Stainless steel				
	☐100 blades/box				
115	Distilled Water, 6 liters per bottle	btl	6	150.00	900.00
116	Phenolphthalein Powder Indicator	btl	1	12,000.00	12,000.00
	☐Analytical Grade				
	☐500 grams per bottle				
117	Potassium Hydroxide	btl	1	4,200.00	4,200.00
	☐Flakes				
	☐Analytical Grade				
	☐1kg per bottle				
118	Potassium Hydrogen Phthalate (KHP)	btl	1	12,000.00	12,000.00
	☐Powder				
	☐500g per bottle				
	☐Analytical Grade				
119	Sulfuric Acid	btl	4	1,750.00	7,000.00
	☐Analytical Grade (98%)				
	☐2.5 Liters per bottle				
	☐specific gravity 1.84				
120	Isopropyl alcohol	btl	1	7,000.00	7,000.00
	☐2 liters per bottle				
	☐Anhydrous,				
	☐99.5%,				
121	Ethanol (Ethyl alcohol)	btl	2	4,500.00	9,000.00



	☐95%,				
	☐4 Liters per bottle				
	☐Analytical Grade				
122	Toluene	btl	1	7,300.00	7,300.00
	☐2.5 Liters per bottle				
	☐Analytical Grade				
	☐99.5%,				
123	Hair Net	pack of 100's	6	300.00	1,800.00
	☐High Quality				
	☐Latex Free, Breathable, Lint-free; Lightweight, Soft and Breathable Material for user comfort				
	☐Color Blue				
	☐Stretchable				
124	Volumetric Flask 10ml	pc	3	800.00	2,400.00
	☐10 mL (± 0.02 mL)				
	☐Class A				
	☐Borosilicate Glass with Glass Standard Taper Stopper				
	☐calibrated				
125	Volumetric Flask	pc	3	360.00	1,080.00
	☐50mL, (± 1 mL)				
	☐Borosilicate glass with glass standard taper stopper,				
	☐Class A				
	☐Calibrated				
126	Volumetric Flask 100ml	pc	3	500.00	1,500.00
	☐100 mL (± 0.01 mL)				
	☐Borosilicate glass with glass standard taper stopper,				
	☐Class A				
	☐Calibrated				
127	Top Loading Weighing Scale, capacity-6kg; accuracy-0.01g	unit	1	35,000.00	35,000.00
	☐Usage/Application: Laboratory				
	☐Capacity: 6 kg				
	☐accuracy: 0.01g				
	☐Display: Digital				
128	96-Well Plates, Polypropylene	pack	1	18,500.00	18,500.00
	☐96 Well Microplate				
	☐well working volume 50-300 μ L				
	☐clear polypropylene wells round bottom maximum volume 355 μ L				
	☐DNase/RNase free				
	☐Non-pyrogenic by LAL method to <0.06 EU/mL				
	☐at least 100 EA per pack				
129	Atomic Absorption Spectrophotometer	lot	1	1,854,108.00	1,854,108.00



	☐double beam spectrophotometer for fast sequential flame multi-element absorption and emission.				
	☐Instrument is capable of measuring at least four elements in the fast sequential mode. in single sample.				
	☐All elements determined sample by sample in fast sequential AAS, and all samples determined element by element by conventional AAS				
	☐Provides dramatic reduction in sample analysis time from reduced sample delay				
	☐Lamp support: four fixed lamp positions with fast automatic lamp selection to enable fast sequential multi-element determination sample by sample				
	☐All lamps operated simultaneously in Fast Sequential mode				
	☐Auto pre-warming of next lamp in sequence.				
	☐Fitted with high speed, high intensity deuterium background corrector covering wavelength range 185-425 nm. with automated self-calibrating Czerny-Turner monochromator and automated slit selection .				
	☐Gas control: Hammer programmable gas control/PC controlled gas flows with automatic setting of gas flows for each element				
	☐Flame safety system: Separate ignite and flame-off buttons. Safety interlocks monitor burner type, liquid trap, pressure relief bung, flame shield, flame operation, mains power, oxidant safety reservoir and deuterium lamp cover.				
	☐supplied with 6 pcs. hollow cathode lamps (single element) (K, Ca, Mg, Na, Cu, Zn)				
	☐Electrical requirements: Single phase AC supply with three-wire system terminated at an appropriate receptacle. 220 or 240 VAC $\pm 10\%$ 50/60 Hz. Rated current 15 A.				
	☐The power supply should be on a separate mains circuit protected by delayed action fuses and/or circuit breakers.				
	☐Spray chamber: Fluorinated high density polyethylene suitable for both organic & inorganic solutions				
	☐Typical performance: Absorbance >0.9 with precision of <0.5%RSD from ten 5 second integrations for 5 mg/L Cu standard.				
	☐With 6 pcs. hollow cathode lamps, branded computer, windows 10 OS, 19" monitor and desk jet printer				
	☐Laptop				
	☐On-site installation with Exhaust system and ductworks				
	☐Includes training of end-users at site				
	☐at least one year warranty on parts and service under normal use of the instrument				
	☐Supplied with software				
130	Hotplate with Magnetic Stirrer	unit	10	30,000.00	300,000.00
	☐voltage requirements 210V-240V				
	☐digital temperature and speed display				



	external temperature control				
	closed loop with 2" magnetic stirrer				
	and thermometer holder				
131	Nutrient Agar, 500g per bottle	btl	1	6,000.00	6,000.00
132	Alcohol, Ethyl, 95% (Tech)	liters	2	115.00	230.00
133	Ammonium Acetate, AR	kgs	2	1,800.00	3,600.00
134	Potassium Chloride, AR, 1000g per bottle	btl	1	2,500.00	2,500.00
135	Tri-power Stereo Microscope	unit	4	25,000.00	100,000.00
	45° advance viewing head which can rotate 360°				
	locked on 15x wide-field eye piece with diopter adjustment on one ocular tube				
	magnification of paired objectives: 30x parfocal, 45x parcentered, and 60x achromatic				
	led lighting				
	rack and pinion focusing with slip clutch and tension adjustment				
	adjustable pole mounted cycle				
	includes a 95mm black and white reversible stage plate				
	rugged all metal construction				
	corded				
	power source: 220-240 V 50/60Hz				
	with warranty				
136	Table Type Vacuum Packaging Machine	unit	1	33,900.00	33,900.00
	voltage: 220V/50-60Hz				
	power: 0.75W				
	heat-sealing power: .6 Kw				
	lowest absolute pressure of vacuum case: 1.33 kpa				
	volume of vacuum case: 380 x 380 x 80 mm				
	heat sealing strip length and width: 260 x 8 mm				
	number of heat sealing strips: 1 or 2 pcs				
	exhaustment of vacuum pump: 10m3/h				
	material of vacuum case and null: stainless steel				
	dimension: 470 x 330 x 300 mm (l x w x h)				
	weight: 45 kgs				
137	Laboratory Refrigerator with 10.6 cubic foot/300 L capacity	unit	2	70,000.00	140,000.00
	Temperature range: +2°C to +8°C				
	Inner cabinet: white epoxy painted				
	Inner shelves: epoxy plastic coated steel rod				
	CFC Free Eco-friendly refrigerant R 134a				
	CFC Free, environment friendly Cyclopentene foaming PUF insulation				
	No frost, fan-assisted cooling circulation system				
	Ultra-fast pull down, auto defrost with self-evaporating drip tray				



	☐Rear-to-front hot air anti-condensation				
	☐Digital temperature controller				
	☐Double glazed glass doors				
	☐Full length illumination				
	☐Fitted with castors, front two with brakes				
	☐Low noise, green technology and energy saving				
	☐Self-closing hinge doors				
	☐Lock as standard				
	☐Input 220/240V, 50 Hz with power cord & plug				
	☐Automatic voltage stabilizer with time delay restart				
	☐gross volume: $\geq 300\text{ L}$				
138	Electric Compound Binocular Microscope (4)	unit	4	55,000.00	220,000.00
	☐Objective Lenses: DIN standard Achromat 4x, 10x, 40xR, 100xR oil immersion objectives are parfocalled, parcentered, color coded and mounted in reverse facing quadruple;				
	☐Eyepieces: Wide field 10x eyepieces, FN18. Interpupillary adjustment 55-75mm. Eyepiece can be fitted with a 20mm diameter reticle				
	☐Total Magnification: 40x, 100x, 400x, 1000x				
	☐Specimen Stage: Large 125mm x 115mm stage, with built-in mechanical stage. Mechanical stage provides X-Y movement of 55mm x 75mm				
	☐Focusing: Rack and pinion coarse focus with tension adjustment, separate fine focus. Coarse focus knob control moves the stage up or down 20mm. Fine focus moves 0.2mm per				
	☐Condenser: Abbe NA 1.25 condenser with iris diaphragm and filter holder for 32mm filter				
	☐Illumination: 1W LED illumination with on/off switch with intensity control. Corded microscope is voltage sensing 100~240V				
	☐Warranty: 5-year warranty, excluding LED bulb				
	☐Includes: Dust cover and blue filter				
139	Semi-Automatic Rotary Microtome	unit	1	500,000.00	500,000.00
	☐For paraffin-embedded tissue sectioning				
	☐Section thickness total range in (μ): 0.5 - 100				
	☐Trimming total range in (μ): 1 - 600				
	☐Specimen feed in (mm): 27-29				
	☐Vertical stroke in (mm) for sectioning og mega-cassettes: 71-73				
	☐User interface: 6"-8" capacitive touchscreen display				
	☐Operating modes: Rotational or Rocking (selectable)				
	☐Specimen retraction total range (μ): Selectable between 5 – 250, Default value: 40 μ				
	☐Motorized coarse feed (μ m/sec): 300 - 1800				
	☐Blade Holder Type: Two in One for high and low profile blades				



	☐Max. specimen size (mm): 50x60x40 (w x h x d)				
	☐Specimen orientation: $\pm 8^\circ$ horizontal and vertical, Rotational capability: 360°				
	☐Power requirements: 100-240 VAC / 50-60Hz				
	☐Dimensions in (mm): 460-470 (width) x 540-545 (depth with tray) x 295-300 (height)				
140	Micro Bead Sterilizer with 1000g Glass Beads	unit	2	48,000.00	96,000.00
	☐Capacity: 300g/11oz.				
	☐Chamber diameter: 1.6 in/ 40mm				
	☐Height: 15.5 cm/6.1 in				
	☐Length: 14.5 cm/5.5 in				
	☐Temperature range: 100 to 300 °C				
	☐Power source: 220-240V 50/60hz				
141	Portable Electric Balance/Weighing Scale with AC Adapter and Storage Cover	unit	1	30,000.00	30,000.00
	☐Capacity: 8200 g				
	☐readability: 1g				
	☐linearity: + 1g				
	☐pan shape: square				
	☐level bubble adjustment feet				
	☐wide LCD display with backlight				
	☐multiple weighing mode				
	☐power source: AC (220 - 240 V 50/60Hz) and DC (AA-Battery)				
142	Rechargeable Precision Top Loading Balance	unit	1	30,000.00	30,000.00
	☐Capacity: 10 kg				
	☐readability: 0.1 g				
	☐linearity: +/- 0.3g				
	☐repeatability: 0.3g				
	☐weighing units: gram, kilogram, pound, carat, Newton				
	☐display: LCD				
	☐Built-in application: check weighing, parts counting, percent setup, unstable conditions, peak hold				
	☐interface: RS-232 port				
	☐Operating temperature range: 15 to 30 degrees C				
	☐Compliance: CE				
	☐Power: rechargeable battery with 240V AC adapter				
	☐weight: 2.8 -3 kg				
	☐weighing pan: 195 x 195 mm (W x D)				
	☐overall dimension: 97 x 206 x 333 mm (H x W x D)				
143	40x-2000x LED Biological Trinocular Compound Microscope with 5MP Camera and Macbook Pro Laptop	unit	1	300,000.00	300,000.00
	☐Head: trinocular, 45 degree inclined, 360 degree swiveling				
	☐Nosepiece: revolving quadruple				



☑Objective: Achromatic, DIN 4X, 10X, 40X(Spring), 100X(Spring, Oil)				
☑Eyepiece: WF10X and 20X				
☑Stage: 3D double layer, size 5.5 x 5 in (14 x 12.7 cm), X-Y stroke: 3x2 in (7.6 x 5.3 cm)				
☑Focusing: coaxial coarse and fine				
☑Condenser: Abbe, NA=1.25, with iris diaphragm				
☑Illumination: LED				
☑Power Supply: 100-240VAC, 0.35A adapter to DC6V, 2A				
☑Achromatic optical system with precise optical glass elements				
☑Adjustable ocular diopter on left ocular tube				
☑High resolution images over a wide field of view				
☑Heavy-duty metal framework				
☑5MP USB camera with Windows/Mac software				
☑GS and CE approval				
☑Excellent five (5) year warranty				
☑Camera specifications				
◀Sensor: Aptina MT9P001 (color)				
◀Sensor Type: CMOS				
◀Sensor Size: 5.7x4.3mm (1/2.5" class)				
◀Pixel Size: 2.2 micrometers				
◀Resolution: 5.1MP				
◀Frame Rate: 55fps @ 640x480, 18fps @ 1280x960, 6.8fps @ 2592x1944				
◀Sensitivity: .53V/Lux-sec				
◀Connectivity: USB 2.0				
◀Compatibility: Windows (32/64 bit) XP/Vista/7/8/10, Mac OSX, Linux				
◀Mounting Sizes: 23mm, 30mm, 30.5mm, and C-mount				
☑Packing List:				
◀Trinocular Microscope Body				
◀Four Achromatic DIN Objectives, 4X, 10X, 40X(S), 100X(S, Oil)				
◀One Pair of WF10X Eyepieces				
◀One Pair of WF20X Eyepieces				
◀Bottle of Immersion Oil				
◀Dust Cover				
◀AC Adapter				
◀User's Manual Download				
◀One 5.0MP Color Digital Camera - MU500B				
◀One 0.5X C-mount Relay Lens				
◀One 6' (1.8m) USB Cable				
◀Two Eyepiece Adapters, 30.0mm 30.5mm				
◀Two Rubber Seal Rings				



	◀One CD with Software, Driver and User's Instructions				
	▣Macbook Pro Laptop Specifications				
	◀13-inch Retina display with True Tone				
	◀Apple M1 chip with 8-core CPU, 8-core GPU, and 16-core Neural Engine				
	◀8GB unified memory				
	◀256GB SSD storage				
	◀Magic Keyboard				
	◀Touch Bar and Touch ID				
	◀Force Touch trackpad				
	◀Two Thunderbolt / USB 4 ports				
144	Upright Flourite Objectives Flourescence Microscope including a microscope camera, a c-mount camera	unit	1	600,000.00	600,000.00
	▣Head: Trinocular				
	▣Objectives: Plan Achromat or UPlanFL 4x, 10x, 40x, 100x oil				
	▣Eyepieces: 10x Eyepieces				
	▣Nosepiece: 6 position				
	▣Stage: Graduated mechanical XY stage				
	▣Fluorescence: 4 Position Fluorescence Attachment, 100 Watt Mercury Lampouse & Power Supply				
	▣Fluorescence Dichroic Filter Cubes: FITC – U-MNB. Blue light shines on slide, green light in eyepieces, TRITC – Orange. Green light shines on slide, orange light in eyepieces, Four-Place rotary filter cube turret, Includes blank light blockers on the empty spaces to protect against harmful UV entering the viewing head.				
	▣Transmitted Halogen Lighting: High power 100W halogen illumination , Built-In Transmitted Light Filters: neutral density ND6, neutral density ND25, LBD (Daylight compensation), Condenser U-AC2: 1.1 numerical aperture				
	▣Frame has Autovolt Voltage Input: 220 – 240 VAC auto volt, 50 – 60 HZ.				
	▣Travel focus lock stop				
	▣Photography: Top camera port. 3-Position prism slider. 100 percent to eyepieces, 100 percent to camera, or split to eyepieces and camera				
	▣One year warranty				
	▣Microscope Camera specification				
	◀Image Sensor: 1 in. color CMOS				
	◀Resolution (max.): 4104 (W) x 2174 (H) pixels				
	◀Pixel Size: 3.45 x 3.45 μ m				
	◀Binning: 2 x 2				
	◀A/D Converter: 10 bits				
	◀Exposure Times: 27 μ s–15 s				
	◀Data Transfer: USB 3.1 Gen1				



	◀PC Control: Windows 10 Pro (64 bit)				
	◀Compatible with the desktop computer				
	☑Camera Adapter Specification				
	◀must be compatible with the fluorescence microscope				
	◀must be compatible with the microscope camera				
	☑Desk top computer specification				
	◀must be compatible with the microscope camera				
	◀with license Windows 10 Pro (64 bit)				
	◀brand new				
	◀Processor: Intel Core i5 9400F or higher				
	◀Motherboard: Intel H310 Chipset, Anti-Sulfur Resistors Design, Gaming LAN with Bandwidth Management				
	◀Memory: 16GB (2x8) DDR4 or higher				
	◀SSD: 500GB M.2,				
	◀Optical Drive: DVD-RW				
	◀Casing: W/ 700W PSU,				
	◀Monitor: 23" IPS FHD,				
	◀Keyboard and mouse combo				
	◀500W IC controlled AVR				
	◀Stereo speakers				
145	Basic Bench pH meters with replaceable electrode and buffer	unit	1	60,000.00	60,000.00
	☑Accuracy temperature: $\pm 0.3^{\circ}\text{C}$				
	☑Accuracy pH: ± 0.1				
	☑Electrical requirements: AC/DC 9 V adapter (220 VAC, 60 Hz)				
	☑Resolution (mV): 0.1 mV (± 199.9 mV); 1 mV beyond ± 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: ± 0.2 mV (± 199.9 mV), ± 2 mV beyond ± 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: ± 1999 mV				
	☑Resolution pH: 0.01				
	☑Power source: 220 - 240 50/60 Hz				
	☑Warranty: 2-year meter warranty; 6-month electrode				



	warranty				
146	Hotplate Stirrer including Magnetic Bar and Retriever Kit	unit	1	70,000.00	70,000.00
	☐Heating temperature range: 50°C - 500°C				
	☐Heating rate heating plate: 5K/min				
	☐Heat output: 1000W				
	☐Heat control: LED				
	☐Motor rating output: 1.5W				
	☐Stirring bar length max: 80 mm				
	☐Speed range: 100 rpm - 1500 rpm				
	☐Speed control : sacel 0 - 6				
	☐Fixed safety circuit: 550 °C				
	☐Set-up plate dimensions: 180 x 180 mm				
	☐Set-up plate material: ceramic				
	☐Power output: 1020W				
	☐Power source: 220 - 240 V 50/60 Hz				
	☐Depth: 330 - 335 mm				
	☐Height 105 - 110 mm				
147	(1) TCM400-delete Inverted Biological Microscope with Flourescence Kit (OMMITTED)	<i>(this item is omitted)</i>			
148	Laminar Flow Hood	unit	1	250,000.00	250,000.00
	☐Horizontal Flow				
	☐Heavy plastic laminate work surface				
	☐enamel finish standard color				
	☐white flourescent type self contained lighting				
	☐Dimensions: 43" wide, 22" deep, 34" high				
149	ELISA READER	unit	1	580,000.00	580,000.00
	☐(Filter wheel-type) (Bio-rad iMark)				
	☐Wavelength range: nm400-750 or wider				
	☐Compatible plate/strips: flat, U, or V-bottom microplates or 8- or 12- well strip plates.				
	☐Number of filters accommodated: at least 8				
	☐includes 415, 450, 490, 595, 655 and 750 nm filters.				
150	MICRO CENTRIFUGE , (Ventilated)	unit	1	45,000.00	45,000.00
	☐Capacity : 24 x1.5/2mL				
	☐Max. Speed : 13,300rpm				
	☐Max. RCF : 17,000 x g				
	☐Noise Level: 56dbA				
	☐Temperature Range : Ambient temperature				
	☐Certifications/Compliance : CSA, CE, IVD				
	☐Type : Benchtop Centrifuge				
	☐Includes: 24 x 1.5/2.0mL rotor, 32 x 0.2mL rotor with Click Seal, Biocontainment lid				
	☐Description: Micro CL17 Centrifuge Ventilated				
	☐Electrical Requirements: 110/240V 50/60Hz				



	<ul style="list-style-type: none"> Run Time: 1 to 99min (1min increments); hold 				
	<ul style="list-style-type: none"> Standards : IEC 61010-1, IEC 61010-2-020 				
	<ul style="list-style-type: none"> Dimensions (HWD): 8.9 x 9.6 x 13.8in. (22.5 x 24.3 x 35.2cm) 				
	<ul style="list-style-type: none"> Net Weight : 23.1lb. (1.41kg) 				
151	Micropipette Set	sets	2	75,000.00	150,000.00
	<ul style="list-style-type: none"> Fully autoclavable Pipettes with Carousel Stand with volume capacity: 0.2-2ul, 1-10ul, 2-20ul, 10- 100ul, 20-200ul, 100-1000ul 				
	<ul style="list-style-type: none"> Fully Autoclavable at 121 °C for 20 minutes 				
	<ul style="list-style-type: none"> Triple-Speed Turbo (one rotation of triple dial is equal to 3.5 rotations of the ordinary push- button dial) and with lock lever 				
	<ul style="list-style-type: none"> Mushroom-shaped button and color coded 				
	<ul style="list-style-type: none"> Digital indicator 				
	<ul style="list-style-type: none"> Inclusions: 200µl, Standard Tip, Graduated, Natural, PP Rack, Sterilized; 1000µl, Standard Tip, Graduated, Natural, System Rack(PP), Sterilized; 20µl, Filter Tip, System Rack(PP), Sterilized, 96 tips/rack, 10 rack/unit 				
	<ul style="list-style-type: none"> Inclusions: 200µl, Standard Tip, Graduated, Natural, PP Rack, Sterilized; 1000µl, Standard Tip, Graduated, Natural, System Rack(PP), Sterilized; 20µl, Filter Tip, System Rack(PP), Sterilized, 96 tips/rack, 10 rack/unit 				
152	Mini CENTRIFUGE	unit	1	40,000.00	40,000.00
	<ul style="list-style-type: none"> Description: 				
	<ul style="list-style-type: none"> Quiet & Compact 				
	<ul style="list-style-type: none"> Spins multiple micro sample tube sizes 				
	<ul style="list-style-type: none"> Ideal for Quick Spin-Downs 				
	<ul style="list-style-type: none"> Fast Starting & Stopping 				
	<ul style="list-style-type: none"> Specifications: 				
	<ul style="list-style-type: none"> RPM: 6,600 rpm 				
	<ul style="list-style-type: none"> RCF: 2,200 xg 				
	<ul style="list-style-type: none"> Microtube Rotor: 2 x 8-strips or 16 x 0.2mL tubes 				
	<ul style="list-style-type: none"> Dimensions (WxDxH): +4 °C to 50 °C 				
	<ul style="list-style-type: none"> Electrical: 100V to 230VAC, 50/60 HZ, 0.1 A 				
	<ul style="list-style-type: none"> Warranty: 1 year 				
153	PCR Machine	set	1	1,100,000.00	1,100,000.00
	<ul style="list-style-type: none"> Excitation source: Quartz-tungsten halogen lamp 				
	<ul style="list-style-type: none"> Excitation range: 350 to 750 nm 				
	<ul style="list-style-type: none"> Detector: Photomultiplier tube (PMT) 				
	<ul style="list-style-type: none"> Detection range: 350 to 830 nm 				
	<ul style="list-style-type: none"> Filters: FAMTM/SYBR[®] Green I (492nm-516nm), HEXTM/JOETTM/VICTM (535nm-555nm), ROXTM/Texas Red[®] (585nm-610nm), Cy5TM (635nm-665nm) and Cy3 (545-568) 				
	<ul style="list-style-type: none"> Thermal system: Peltier-based, 96-well block thermal cycling system; temperature range 25-99 °C 				



	☐Sample format: Standard 96-well plates, 8-strip tubes, 200 µl tubes, optimized for 25µl reactions				
	☐Linear dynamic range: 10 orders of magnitude, standard curve method				
	☐Temperature uniformity: +/- 0.25 °C at 72 °C; ramp rate: up to 2.5 °C/second				
	☐Amplification rate: standard 40 cycle 2-step QPCR reaction completed in 90 minutes.				
	☐Discrimination: distinguish samples with 5,000 and 10,000 template copies with a 99.7% confidence level				
154	THERMALBLOCK	unit	1	45,000.00	45,000.00
	☐Max. temperature control range: 110 °C				
	☐Min. temperature control range: -10 °C				
	☐☐Temperature accuracy: Max. ±0.5 °C at 20 – 45 °C1				
	☐Temperature settings: -10 °C/110 °C (110 °C when using the (Smart Blocks 12 mm or cryo)				
	☐Timer: 15 s to 99:30 h, continuous				
	☐Heating rate: Max. 9 °C/min (when using the Smart Block PCR 384)1				
	☐Cooling rate Max.: 5.0 °C/min between 110 °C and RT1				
	☐Interfaces: USB interface				
	☐Power supply: 220 – 240 V, 50 – 60 Hz				
	☐Max. power consumption: 200 W				
	☐Dimensions (W × D × H): 20.6 × 30.4 × 13.6 cm				
	☐Weight w/o accessories: 4.3 kg				
	☐Temperature range Min: 30 °C below RT, max: 110 °C (110 °C when Using the Smart Blocks 12 mm or cryo)				
155	VORTEX MIXER	unit	1	40,000.00	40,000.00
	☐Description:				
	◀Vortex mixer with powerful motor comes equipped with standard cup head				
	◀200-3200 rpm speed range				
	◀Economical and effective vortexes for general lab processes				
	◀Features::Q-Drive Dynamic Balance System, Touch or Continuous Operation				
	◀Two-Year Manufacturer Warranty				
	☐Specifications:				
	◀Electrical Specifications: 120V, 1.5A, 172.5W, 60Hz, 1Ph				
	◀Dimensions, Product: 5"W x 6.3"D x 6.7"H (130 x 160 x 170 mm)				
	◀Weight, Product: 10 Lbs (5 kg)				
	◀Dimensions, Shipping: 14"W x 12"D x 8"H (360 x 305 x 205 mm) • Weight, Shipping: 11 Lbs (5 kg)				
	◀Ships From: 08817 Edison, NJ				
	◀Package Type: Box				
156	Ammonium Nitrate	kl	5	5,500.00	27,500.00



	■AR grade; at least 98% purity				
	■Molecular Wt. 80.043 grams per mol.				
	■1kg/pack				
157	Polyethylene Bags, 4 x 4 x 8"	pcs	200	4.00	800.00
158	Potato Dextrose Agar (PDA), 500 grams	btl	1	4,500.00	4,500.00
159	Copper Sulphate, 500 grams/pack	pack	1	500.00	500.00
160	Nutrient Agar, 500g	btl	1	5,455.00	5,455.00
161	Agar-Agar	kls	4	2,800.00	11,200.00
162	Ethyl Alcohol (95%), Container Size: Water Can	canister	5	3,000.00	15,000.00
163	Plant Preservative Mixture (PPM), for plant tissue culture at least 25-30 ml per bottle	btls	2	5,000.00	10,000.00
164	Analytical Balance	unit	1	40,000.00	40,000.00
	■capacity-200 grams;				
	■accuracy-0.001g				
	■readability 0.001g				
	■digital				
	■with certificate of calibration				
	Rebidding				
165	Stainless Steel Modular Veterinary Dog/Cat Cage	unit	1	63,000.00	63,000.00
	<i>Feat Type: Pet Cages, Carriers & Houses</i>				
	<i>Item Type: Soft-Sided Carriers</i>				
	<i>Closure Type: Button</i>				
	<i>Material: Metal, 304 stainless steel</i>				
	<i>Pattern: ANIMAL</i>				
	<i>Style: CLASSICS</i>				
	<i>Cage, Carrier & House Type: Cages</i>				
	<i>Application: Dogs</i>				
	<i>Product Name: Stainless Steel Dog Cage (Modular)</i>				
	<i>Overall Size: 1220x1570x700mm(LxHxD)</i>				
	<i>Weight: 110KG</i>				
	<i>Cage Size: 610x715x700mm(LxHxD)</i>				
	<i>Cage Qty: 4 Cages</i>				
	<i>Wheel: 4 Caster Wheels</i>				
	<i>Lock: Automatic</i>				
	<i>Package: Plywood Case</i>				
	<i>Customization: Acceptable</i>				
	<i>Model Number: TYXD-DB09S</i>				
	<i>Combination (each single cage can be combined together with stainless steel connectors) (CVM)</i>				
		TOTAL ABC (this project):			10,065,664.00

(Sgd.)
DILBERTO O. FERRAREN
BAC Chairman