



Republic of the Philippines  
**CAVITE STATE UNIVERSITY**  
 Don Severino de las Alas Campus  
 Indang, Cavite  
[www.cvsu.edu.ph](http://www.cvsu.edu.ph)

**SUPPLY, DELIVERY AND INSTALLATION OF VARIOUS LABORATORY EQUIPMENT FOR THE UNIVERSITY (Remaining from EPA)**

**ABC: ₱3,748,700.00/ F101**

Item No.	Unit	Specifications	Unit Price	Total Price
1	1 unit	<b>ROTARY EVAPORATOR</b> Rotary bottle: 1 L # 24 (Standard size) Condenser: 1 L #35 ball mill mouth (vertical) Diameter: 70-80 mm Length: 400-430 mm Rotating speed: 0-210 RPM Charging Valve: standard size (#19) Vacuum: -0.095 to -0.10 Mpa Vacuum sealing: double sealing rings Temperature range: RT- 100°C Temperature Accuracy: ±1°C Stroke Height: 100 mm + 150 mm (sliding + manual) Rotary motor: 35 -45 W Heating power: 1 KW – 1.5 KW Water Evaporating Speed: 20-25 mL/min Material (unit): Aluminum alloy or better Power Supply: AC 220 V; 50/60 Hz Accessories: 1 L receiving flask Cold trap flask Evaporation flask (round bottom flask) Vacuum pump (oil-based) Circulating Chiller Standard Warranty on parts and services: 1 year	320,000.00	320,000.00
2	1 Units	<b>Inverted Microscope (MACAPUNO)</b> - Long-life LED illumination - Wide and clear view trinocular - Applicable for live cell imaging in petri plates and micro plates or cell cultures - With 4-fold magnification: 4x, 10x, 20x, 40x magnification - Interference contrast - Mechanical stage with stage extension plate - Hemacytometer holder - Universal holder - Eye piece micrometer cross lines on X and Y - Stage micrometer for biological microscope - With pointer - Dust cover - Power cord - With digital camera and compatible desktop / laptop - Suitable for fluorescent observation - 1 year warranty for service and 2 years warranty on parts	450,000.00	450,000.00
3	1 Units	<b>Refrigerated Centrifuge (CVMBS)</b> - Tabletop Refrigerated centrifuge - Max speed: 15,300 rpm	700,000.00	700,000.00

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		<ul style="list-style-type: none"> <li>- Max RCF: 22,250 xg</li> <li>- Maximum capacity: 2,000 mL</li> <li>- Temperature setting: -10 to 40°C in 1°C increments</li> <li>- Cools up to 4°C in less than 10 minutes</li> <li>- Has rotors for 0.2, 1.5 and 2.0 ml tubes</li> <li>- Size: Approx. 70(W)x 63(D)x36(H) cm</li> <li>- Height with opened lid: 88.3 cm*</li> <li>- Weight: Approx. 83 kg to 87 kg</li> <li>- Power consumption and Head output: Approx. 710W, 2.6MJ/h</li> <li>- About 9W (power consumption in power saving mode)</li> <li>- Power requirements: single phase 220 ± 10% V 50/60Hz, 10A</li> <li>- Single phase 230 ± 10 % V 50/60Hz, 10A</li> <li>- Rated voltage and rated current: 220 V, 50/60 Hz: 3.8A, 230 V, 50/60Hz: 3.7A</li> <li>- Test standard: IEC61010-2-020</li> <li>- Control system: Inverter Microprocessor control, Rotation speed, RCF, Time, acceleration/deceleration, Number of memories: 99 channels at the maximum (3 for direct invocation using the panel button)</li> <li>- Error and user message display: Lid open, Imbalance, Over speed, Motor, Speed sensor, temperature sensor, Lid rock, inverter, Abnormal temperature, Imbalance sensor <ul style="list-style-type: none"> <li>- Two-year warranty</li> </ul> </li> </ul> <p>ADDITIONAL Rotors</p> <ul style="list-style-type: none"> <li>• One (1) autoclavable angle rotor for 50mL and 15mL conical tubes (micro and falcon); compatible with the refrigerated centrifuge system</li> </ul>		
4	2 Units	<p><b>UV Cleaner Box for PCR (CVMBS)</b></p> <ul style="list-style-type: none"> <li>- Tabletop</li> <li>- Walls material Rear: stainless steel,</li> <li>- Sides: steel with chemical resistant powder coating</li> <li>- Front: glass (Euro glass)</li> <li>- Working surface material: Stainless steel</li> <li>- Open UV-lamp: 1 x 25W built-in bactericidal UV-C, TUV 25W 1SL/25</li> <li>- Working surface: chemical resistant stainless steel</li> <li>- With bactericidal UV Lamp and UV recirculatory, digitally timed with 1 min increments</li> <li>- UV radiation level: 18 mW / cm<sup>2</sup> / sec</li> <li>- Radiation type: UV (λ = 253.7 nm), ozone-free</li> <li>- Digital time setting of direct UV exposure: 1 min 24hrs / non-stop (increment 1 min)</li> <li>- UV-recirculator: 1x25W (efficiency &gt;99% per 1 hour)</li> <li>- Daylight lamp (for working area illumination): 1 x TLD-15W</li> <li>- Thickness of side panels: 2 mm</li> <li>- Thickness of upper front panel: 8mm</li> <li>- Thickness of screen: 4 mm</li> <li>- Optical transmission: 95%</li> <li>- UV protection: &gt;96%, UV-protection film</li> <li>- Working area: 645 x 490 mm</li> <li>- Opening dimensions (fully raised protective screen): 645 x 190 mm</li> </ul>	200,000.00	400,000.00

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		<ul style="list-style-type: none"> <li>- Safety features: Automatic open UV-lamp switch off when screen is open</li> <li>- Power outlets inside the unit: Inlet for cords and 1x Built-in socket, max 1000 W</li> <li>- Dimensions: at least 690 x 535 x 555 mm</li> <li>- Weight: 39kg to 43kg</li> <li>- Power Supply: AC100-240V 50/60Hz</li> <li>- Standard Warranty</li> </ul>		
5	1 Unit	<b>UV Transilluminator with Camera Box for Gel Documentation (CVMBS)</b> <ul style="list-style-type: none"> <li>- Material: painted aluminum</li> <li>- Dimensions: at least 50 x 35 x 32.5 (H x L x W)</li> <li>- View area: at least 26 cm x 21 cm</li> <li>- Camera box: with viewing window and separate camera window compatible with DSLR camera or equivalent</li> <li>- Camera: High resolution color CMOS</li> <li>- Resolution: 2048 x 1536</li> <li>- Lens: F1.4 12mm Fixed focal lens</li> <li>- Zoom: 1x~8x 0.2x step / 1x step adjustable</li> <li>- Control: 10-inch touch LCD panel or PC software control</li> <li>- Filter: Orange filter (50 mm)</li> <li>- File format: 16-bit TIFF, 8-bit TIFF, BMP, JPEG</li> <li>- Exposure time: 1 msec~ 10 sec</li> <li>- Saturation: White level</li> <li>- Power: AC100V-240V 2A 50/60Hz (AC adapter)</li> <li>- Color mode/Monochrome mode selectable</li> <li>- Gel tray included</li> <li>- Standard Warranty</li> </ul>	500,000.00	500,000.00
6	1 Unit	<b>Digital pH Meter with pH Pen Tester for liquid solutions (CVMBS)</b> <p><i>Specifications:</i></p> <ul style="list-style-type: none"> <li>- Either benchtop or handheld</li> <li>- pH Range -2.00 to 16.00 pH</li> <li>- Resolution 0.01 pH</li> <li>- Accuracy <math>\pm 0.01</math> pH</li> <li>- Calibration Points Up to 5 (USA &amp; NIST) / Up to 6 (DIN)</li> <li>- Buffer Options: USA, NIST, DIN, standard buffer solutions, NIST approved</li> <li>- ORP Range <math>\pm 2000</math> mV</li> <li>- Resolution 0.1 mV (<math>&lt; \pm 1000</math> mV), 1 mV (<math>\geq \pm 1000</math> mV)</li> <li>- Accuracy <math>\pm 0.3</math> mV (<math>&lt; \pm 1000</math> mV), 0.3% of reading (<math>\geq \pm 1000</math> mV)</li> <li>- Calibration Option Yes</li> <li>- Temperature Range -20°C to 120°C / -22.0 to 266.0 °F</li> <li>- Resolution 0.1 °C/°F</li> <li>- Accuracy <math>\pm 0.5^\circ\text{C}</math> / <math>\pm 0.9^\circ\text{F}</math></li> <li>- Standard Warranty</li> </ul>	100,000.00	100,000.00
7	1 Unit	<b>Nephelometer (CVMBS)</b> <ul style="list-style-type: none"> <li>- Test type: Minimum Inhibitory Concentration (MIC) using 0.5 McFarland standard with LED indicator</li> </ul> <p><i>Physical characteristics</i></p> <ul style="list-style-type: none"> <li>- Approx. Instrument dimensions: 19 cm (W) x 13.5 cm(D) x 9.7 cm (H) 7.5 in (W) x 5.3 in (D) x 3.8 in (H)</li> </ul>	100,000.00	100,000.00

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		<ul style="list-style-type: none"> <li>- Approx. Weight: 1 kg; 2.2 lb</li> <li>Electrical</li> <li>-Power requirements: 100-240 V AC; 400 mA</li> <li>- Power consumption: at least 15 watts</li> <li>- Standard Warranty</li> </ul>		
8	1 Unit	<b>Food Dehydrator Industrial (CAFENR)</b> <ul style="list-style-type: none"> <li>- Power: 6000w</li> <li>- Fan power:36W</li> <li>- Outside dimensions of the body (without wheels) CM:53.5*93.4*168</li> <li>- Inside size: Approx. 41*37.3*72.9</li> <li>- Size of oil receiving plate: 40*30</li> <li>- Shell material/thickness:201 0.8</li> <li>- Visible glass material: tempered</li> <li>- Gross weight: Approx. 115KG</li> <li>- Net weight: Approx. 92KG</li> <li>- Number of fans:8</li> <li>- Temperature range: 30-90 degrees</li> <li>- Time range: 30min-24 hours</li> <li>- Motor speed: 1250rpm</li> <li>- Plug/air switch:32A air switch</li> <li>- Lecon chef--Vertical Dehydrator With 80 Food Trays</li> <li>- Voltage: 220v/50Hz</li> <li>- Capacity:600L</li> <li>- Rated power:6000W</li> <li>- Dry as much as possible:</li> <li>- Multilayer grid</li> <li>- Intelligent control panel</li> <li>- Stainless steel</li> <li>- Standard Warranty</li> </ul>	70,700.00	70,700.00
9	1 Units	<b>Compensated Calorimeter (CAFENR)</b> <ul style="list-style-type: none"> <li>- Compensated Jacket calorimetry</li> <li>- Removable 1108P Oxygen Vessel and Bucket</li> <li>-2-7 tests per hour</li> <li>- Operator time per test is approximately 6 minutes</li> <li>- 0.1-0.3% precision class instrument</li> <li>- 0.0001 °C Temperature Resolution</li> <li>- 52-12000 calorie sample range dependent upon vessel selected</li> <li>- 0.05% Linearity across operating range</li> <li>- SD memory and TCP/IP network communications</li> <li>- USB Port for balance and printer connections</li> <li>- Updates via the Internet</li> <li>- approx. Dimensions (in) 23w x 16d x 17h</li> <li>- Standard Warranty</li> </ul>	700,000.00	700,000.00
10	1 Unit	<b>Refrigerated Centrifuge (CAFENR)</b> <p>Centrifuge Machine 2ml/5ml/10ml/15ml/50ml x 6</p> <ul style="list-style-type: none"> <li>- Low Speed 500-4000rpm,2146xg RCF (relative centrifugal force)</li> <li>- Lab Benchtop Centrifuges with Timer</li> <li>- Large capacity 6 of 15ml conical tubes with screw caps</li> <li>- Speed regulation accuracy +30 r/min</li> <li>- Timing range 10s – 99min59sec</li> <li>- Noise: &lt;60dB (A)</li> <li>- Voltage: AC 220V/110V – 50Hz 5A</li> <li>- Dimensions: 375*320*240mm (l*W*H)</li> <li>- Weight: 5.5 kg</li> </ul>	100,000.00	100,000.00

Item No.	Unit	Specifications	Unit Price	Total Price
		- Warranty: 2 years		
11	4 Units	<b>Desiccator (CAFENR)</b> <ul style="list-style-type: none"> <li>- Chamber Volume (Liters) 10.5</li> <li>- Plate Size (mm) 230</li> <li>- Exterior Height (Inch Short) 15.5</li> <li>- Exterior Height (cm) 39.4</li> <li>- Clearance Above Plate (mm) 120</li> <li>- Flange Outside Diameter (OD)(cm) 32</li> <li>- Material Glass</li> <li>- Color Clear</li> <li>- Glass 9" dia.</li> <li>- Clear</li> <li>- Standard Warranty</li> </ul>	52,000.00	208,000.00
12	1 Units	<b>Spectrophotometer – Optical System (CAFENR)</b> <ul style="list-style-type: none"> <li>- Single Beam, Grating 1200 lines/mm</li> <li>- Wavelength Range <ul style="list-style-type: none"> <li>- 190~1100nm</li> <li>- 320~1100nm</li> </ul> </li> <li>- Spectral Bandwidth <ul style="list-style-type: none"> <li>- 2nm</li> <li>- 4nm</li> </ul> </li> <li>- Wavelength Accuracy <ul style="list-style-type: none"> <li>- ±0.5nm</li> </ul> </li> <li>- Wavelength Repeatability <ul style="list-style-type: none"> <li>- ≤0.3nm</li> </ul> </li> <li>- Photometric Accuracy <ul style="list-style-type: none"> <li>±0.002A (0~0.5Abs), ± 0.004A (0.5~1.0Abs),</li> <li>± 0.5%T (0~100% T)</li> </ul> </li> <li>- Photometric Repeatability <ul style="list-style-type: none"> <li>0.001Abs (0~0.5Abs), 0.002Abs (0.5~1.0Abs),</li> <li>≤0.2%T (0~100% T)</li> </ul> </li> <li>- Stray Light <ul style="list-style-type: none"> <li>≤ 0.05% T @360nm; 220nm</li> <li>≤0.05% T@ 360nm;220nm</li> </ul> </li> <li>- Stability <ul style="list-style-type: none"> <li>±0.001A/h @ 500nm</li> </ul> </li> <li>- Baseline Flatness <ul style="list-style-type: none"> <li>±0.002A</li> </ul> </li> <li>- Noise <ul style="list-style-type: none"> <li>± 0.0005A</li> </ul> </li> <li>- Display <ul style="list-style-type: none"> <li>480*272 65 thousand true color TFT LCD</li> </ul> </li> <li>- Standard Warranty</li> </ul>	100,000.00	100,000.00
Grand Total				<b>₱3,748,700.00</b>

**NOTED BY:**



**RENE B. BETONIO**  
End-User, CAS



**EMMANUEL MAGO**  
End-User, CVMBS



**WILLY ESPINELLI II**  
End-User, Macapuno

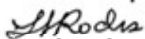


**ABIGAIL DARIA**  
End-User, CAFENR

**CERTIFIED CORRECT:**



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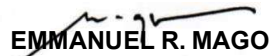
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