	<b>MARIANO MARCOS STATE UNIVERSITY</b> Procurement Division	Document Code	PD-FRM-002	
	<b>Request for Quotation (RFQ)</b> (Goods and Services)	Revision No.	5	Page 1 of 7
		Effectivity Date	April 20, 2022	

### REQUEST FOR QUOTATION (RFQ)

Date: June 29, 2022  
 PR No. 2022-03-034 (05206441)

Sir/Madam:

Please quote your lowest price on the item/s listed below, and submit your quotation duly signed by you or your duly authorized representative not later than **3 days** subject to the Terms and Conditions provided at the last page of this RFQ.

Delivery period must be at least within 90 days upon receipt of the Notice to Proceed or Purchase Order.

For any clarification, you may email us at bac@mmsu.edu.ph.

  
**NATHANIEL R. ALIBUYOG**  
 BAC Chair

ITEM	QTY	Unit	ITEM DESCRIPTION	ABC/unit	UNIT PRICE
1	1	set	<b>COMPLEXIMETRY EXPERIMENTAL SET</b> that includes: Glass and Calomel Electrode, Balance and Triple beam balance; Max Weight: 2610g, Graduation Value: 0.1g, Beam calibrations: 10*0.1g, 100*10g, 500*100g; Total capacity is maximum of 2610 grams	200,000.00	
2	1	set	<b>LABORATORY WATER DISTILLER</b> with pump, engine, tlc. 5-89 liters per hour capacity, TOC control, Microbiological control of less than 50 cfu/ml	200,000.00	
4	1	set	<b>POLARIMETRY EXPERIMENT</b> Polarimeter that meets all application requirements for the determination of optically active substances and their concentration determination for the pharmaceutical, cosmetics, chemical, and medical industries, as well as for R & D.	200,000.00	



5	1	set	<b>AGITATION OR MIXED SET APPARATUS</b> A vortexer that has a small footprint that's ideal for benchtop laboratory space. It measures 10.1-10.2 inches wide by 12.5-12.6 inches deep by 5.5 inches high. It weighs 16-17 pounds and has a 3-3.2-millimeter orbit size. It has a maximum capacity of 4.4 pounds and a speed range of between 100 rpm and 1,200 rpm. The ambient operating temperature ranges from 4 degrees and 65 degrees Celsius.	150,000.00	
6	1	pc	<b>CHEMICAL ENGINEERING SIMULATION SOFTWARE.</b> Chemstations' software suite for process simulation. Features include process development, equipment design, equipment sizing, thermophysical property calculations, dynamic simulations, process intensification studies, energy efficiency/optimization, data reconciliation, process economics, troubleshooting/process improvement, Microsoft Visual Basic etc. (Training on operation included but can be conducted)	100,000.00	
7	1	pc	<b>LABORATORY JAW CRUSHER.</b> Laboratory Jaw Crusher reduces 2-2.05 inches (50-51 mm) aggregate, ore, and rock materials to a product with 80-85% passing a No. 14 (1.4mm) sieve. Jaw opening easily adjust down to 1mm minimum to closely control output size. The maximum throughput is approximately 50lb (22 kg) per hour at 525 rpm. The rate of operation is regulated by the variable speed controller. Jaw plates are high-impact, wear-resistant AR450 steel. It has a 1hp electric motor. Electrical cord and plug are included for operation on 220V/50-60Hz electrical supplies.	150,000.00	
8	1	set	<b>DIFFUSIVITY APPARATUS.</b> Capable of conducting non-contact measurements of thermal diffusivity, heat capacity and thermal conductivity for solid, semisolids and liquid samples. Thermal diffusivity; The apparatus is suitable for the	200,000.00	



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			measurement of thermal diffusivity between the range of 0.1 to 1000 mm <sup>2</sup> /s of various materials. Thermal Conductivity: The measuring range for thermal conductivity is of the order of 0.1 W/m/K. However, measurements may be conducted on samples but with high uncertainty in the lower range band.		
9	1	set	<b>LABORATORY DUST COLLECTOR MACHINE.</b> 220-240V; 50-60Hz. Powerful, bag-free extraction unit with two independently controlled suction ports, automatic filter cleaning and EC motor technology	100,000.00	
10	1	set	<b>LABORATORY FLUIDIZED BED REACTOR.</b> Test the chemical reactivity of solid particles fluidized with a gas. The novelty of the system is that it can be used for testing any solid particles	100,000.00	
11	1	set	<b>GAS ABSORPTION PACKED COLUMN APPARATUS.</b> 1. This apparatus is used to determine the air pressure differential across the columns as a function of airflow rate at different water flow rates down the column, and flooding point can be noted. Absorption process of carbon dioxide from air-CO <sub>2</sub> mixture into caustic soda solution, is also studied using this system. 2. The system components are mounted within a floor standing painted steel framework. 3. The wetted wall column is a glass column with water inlet and outlet sections and is gimbal mounted to ensure that it can be set accurately vertical.	200,000.00	
12	1	set	<b>HEAT TRANSFER LAB EQUIPMENT.</b> Material: Stainless Steel; Display: Digital; Voltage: 220V; Current: 2 Amp; Current Type: DC	150,000.00	
13	1	set	<b>DIGITAL ELECTRONIC HYDROMETER.</b> Has an in-tank, drop-hang submersible density meter that monitors and records specific gravity/liquid density during a mixing,	150,000.00	



			blending or plating operation. Density; +0.400 g/cm <sup>3</sup> (within the range of 0.550 lower limit to 2.000 g/cm <sup>3</sup> upper limit) Sample Temperature; 20 - 160 °C (40-220 °F)		
14	1	set	<b>LABORATORY ION EXCHANGE EQUIPMENT.</b> The set up consists of two glass columns packed with Anion and Cation exchanger resin up to suitable height. The layer of glass wool is placed on bottom and top of the resin bed. The feed is allowed to enter from the bottom of first column and comes out of the top, which is again passed through the second column is same fashion. A digital conductivity of liquid coming out of the second column. Flow rate of water is measured with the pre-calibrated rotameter. A tank with FHP pump with flow control valve and by-pass arrangement is provided for feed circulation.	250,000.00	
15	1	set	<b>ISOTENISCOPE.</b> A portable and multipurpose vapor pressure tester - includes the highest precision and comes with a pressure range between 0 and 2000 kPa.	50,000.00	
16	1	pc	<b>LABORATORY SCALE DRYER.</b> Automatic pin frame transport with pre-selectable dwell times. Heating temperature up to 250 °C; Audible alarm for end of test; Even temperature distribution by the air circulation fan	250,000.00	
17	1	pc	<b>Multi-Element Lamp for Agilent 55B model AAS.</b> (Detect Calcium, Manganese)	50,000.00	
18	2	pcs	<b>OSTWALD VISCOMETER.</b> For the determination of relative viscosities of liquids. Adjusted for outflow time of 80 to 100s with water at 20 °C.	25,000.00	

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19	1	pc	<b>PIEZOMETER.</b> A vibrating wire piezometer used to measure pore water pressure in soil, earth/rockfills, foundations and concrete structures. The unit is of stainless-steel construction and hermetically sealed under a vacuum of 0.001.	25,000.00	
20	1	set	<b>Laboratory Plate and Frame Filter Press.</b> A filter press that has 4" square plates made of polypropylene. The unit has 2 plates forming 3 cake chambers with a total capacity of approximately 0.5 L. It comes mounted on a base and includes a 1/4" air driven diaphragm feed pump. All valving, gauges and piping are included as well as a discharge container that fits under the filter to assist with cleanup of cake.	250,000.00	
22	1	set	<b>Tyler Testing Sieves set with shaker.</b> Tyler Sieves: 10 sets of Tyler sieves of different mesh number. Tyler Sieve Shaker: Measuring range*: 20um- 25 mm; Sieving motion: throwing motion with angular momentum; Amplitude: digital, 1-100% (0-3 mm); Suitable sieve diameters: 100 mm/ 200 mm/ 203 mm (8")	200,000.00	
23	2	set	<b>WESTPHAL BALANCE.</b> The measuring instrument is a special balance for measuring the density of liquid; Agate knife holder is used to ensure the sensitivity and accuracy of the balance; Wooden packaging, so that more convenient to carry, the operation is simpler; The main components of stainless steel, high strength, good stability.	20,000.00	
24	1	unit	<b>Gravimetric Analysis Determination LABORATORY FURNACE.</b> 1100 °C, 1200 °C or 1300 °C maximum operating temperature 5, 13, 23, 36 or 65 litre chamber volumes Carbolite Gero 301 controller, with single ramp to set-point & process timer; Vertical lift door keeps heated surface away from the user; Soft	700,000.00	

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			closing door on 5, 13, 21 & 23 litre models ; Delayed start/ process timer function as standard ; Hard wearing alumina element carrier, furnace entrance and hearth; Energy efficient low thermal mass insulation; Free radiating wire wound elements for optimum uniformity; Easy access to elements & controls simplifies maintenances & servicing; CWF-B: Enhanced airflow from tall chimney & door vents for full combustion; CWF-BAL: with integrated balance that runs independently of the furnace control system; CWF - BAL: Software supplied with the balance may be used to monitor the balance reading via a computer; CWF-BAL: Maximum capacity of balance is 3kg with a resolution of 0.01 g (other capacities available		
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**TOTAL ESTIMATED BUDGET: P 3,765,000.00**

**REMARKS/NOTE:** \_\_\_\_\_  
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After having carefully read and accepted your Terms and Conditions, I/we submit our quotation/s on the item/s at prices indicated above.

Business Name: \_\_\_\_\_  
 Business Address: \_\_\_\_\_  
 Printed Name of the Owner: \_\_\_\_\_  
 TIN: \_\_\_\_\_  
 PhilGEPS Registration Number: \_\_\_\_\_  
 Business Permit: \_\_\_\_\_  
 Omnibus Sworn Statement: \_\_\_\_\_  
 Annual Income Tax Return: \_\_\_\_\_

\_\_\_\_\_  
 Signature over Printed Name  
 \_\_\_\_\_  
 Tel. No./Cellphone No./e-mail address  
 \_\_\_\_\_  
 Date

Canvassed by: \_\_\_\_\_