## **BATAAN PENINSULA STATE UNIVERSITY**

Balanga City, Bataan

## **OFFICIAL BIDDING FORM**

ltem No.	QTY	Unit	SPECIFICATIONS	OFFER; (Brand)	Unit Cost	Total Cost
1	lot	1	Physicochemical Water Quality Analysis Equipment			
1		1	Dual Channel pH/ORP/Cond/TDS/Res/Sal/Temp Benchtop Water Quality Meter			
			For the second sec			
			Features Large Black & White static LCD			
			Large font-size for primary measurement value			
			Soft-touch keypad			
			Memory function ATC with temperature calibration			
			Auto Shut-off (1 to 30 minutes)			
			Auto-hold and stability indicator			
			Password lock Calibration data print for GLP/GMP compliance			
			New integrated electrode stand			
			USB or RS232 connecting to PC/printer			
			Small footprint			
			Technical Specifications			
			pH range2.000 to 19.999 pH			
			Resolution - 0.1/0.01/0.01 pH			
			Accuracy - ± 0.003 pH Cal Points - 5			
			Buffer Options - USA/NIST/Custom			
			ORP Range - ±1999.9 mV			
			Resolution - 0.1 mV			
			Accuracy - $\pm 0.2$ mV			
			EC Range			
			$\mu$ S/cm to 19.99 $\mu$ S/cm			
			μS/cm to 1999.0 μS/cm μS/cm to 20.00 μS/cm μS/cm to 200.00 μS/cm			
			Resolution - 0.05% F.S.			
			Accuracy - ± 0.6% F.S (±1.5% F.S > 18.0 ms/cm)			
			Ref. Temp - 15 to 30 deg C (Selectable)			
			Temp. Cofficient - 0.01 to 10.0% (Selectable) Cell Constants - 0.1/1.0/10/0			
			Cal Points - 4			
			Units Setting - Auto Ranging/Manual/µS/cm or mS/cm or S/m			
			TDS Range			
			0.01 ppm to 9.99 ppm			
			0.1 ppm to 999.9 ppm 1 ppm to 10.00 ppm			
			10 ppm to 100.00 ppm			
			Resolution - 0.01 ppm / 0.1 ppt			
			Accuracy $-\pm 0.1\%$ F.S TDS Curves EN27888 442 linear (0.40 to 1.0)			
			TDS Curves - EN27888, 442, linear (0.40 to 1.0)			
			See Next Page			
			Resistivity Range - 0.000 $\Omega$ /cm to 20.000 $\Omega$ /cm to 200.0			
			Ω/cm			
			Resolution - 0.05% F.S. Accuracy - 0.06% F.S. (±1.5% F.S > 1.80 MΩ/cm)			
			Salinity Range - 0.0 to 100.0 ppt/0.00 to 10.00%			
			Resolution - 0.1 ppt/0.1% Accuracy - 0.2% F.S.			
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			Cal Curves - NaCl/Sea Water		
			Termoreture $20.0$ to $120$ dec C		
			Temperature30.0 to 130 deg C Resolution - 0.1 deg C		
			Accuracy - $\pm 0.4$ °C		
			Accessories Included		
			1 unit - Refillable, glass-body pH electrode with integrated		
			temperature sensor		
			1 unit - Plastic body, k - 1.0 conductivity cell		
			1 set - pH Buffer Set (pH 4.01, 7.01, 10.01 3.33 KCL solutions at		
			250 ml each		
			1 set - Conductivity Standard Solution Set (84 μS/cm, 1413 uS/cm, 12.88 mS/cm, 111.9 mS/cm solutions), 250ml each		
			1 unit Electrode Stand		
2		1	Multi-parameter Water Quality Meter with GPS		
			Specifications & Eastures		
			Specifications & Features Automatic calibration		
			Water resistance: JIS protection level 7 or better		
			GPS		
			At least ten 10 water quality parameters:		
			рН		
			Range: 0-14		
			Resolution: 0.01pH or better		
			Accuracy: $\pm 0.1$ pH or better		
			Oxidation Reduction Potential (ORP)		
			Range: ±2000 mV		
			Resolution: 1 mV or better Accuracy: ±15 mV or better		
			Dissolved Oxygen (DO)		
			Range: 0 to 50.0 mg/L		
			Resolution: 0.01 mg/L or better		
			Accuracy: $\pm 0.5$ mg/L or better		
			Automatic temperature compensation		
			Conductivity (COND)		
			Range: 0 to 100 mS/cm		
			Accuracy: $\pm 1\%$ F.S. or better		
			Automatic range detection and temperature conversion		
			Salinity Range: 0 to 70 PPT		
			Resolution: 0.1 PPT or better		
			Accuracy: $\pm 3$ PPT or better		
			Total Dissolved Solid (TDS)		
			Range: 0 to 100 g/L		
			Resolution: 0.1% F.S. or better		
			Accuracy: $\pm 5$ g/L or better		
			Seawater specific gravity		
			Range: 0 to 50 ot		
			Resolution: 0.1 $\sigma$ t or better Accuracy: ±5 $\sigma$ t or better		
			Temperature		
			Range: -5 to 55°C		
			Resolution: 0.01°C or better		
			Accuracy: $\pm 0.3 + 0.005  1 $ or better		
			Turbidity (TURB)		
			Range: 0 to 800 NTU or better		
			Resolution: 0.1 NTU or better		
			Accuracy: $\pm 1$ NTU or better		
			Water depth		
			Accuracy: $\pm 0.3$ m or better		
3		1	Double - Beam UV - Vis Spectrophotometer		
			Optical System		
			Optical System		
			Czerny-Turner mount, Double beam monochromator Wavelength range		
			190 to 1100 nm		
			Spectral band width		
			1 nm or better		
			Stray Light		
			198 nm (KCl): 1.0% or less		
			220 nm (NaI): 0.05% or less		
			340 nm (NaNO2): 0.05% or less		
			Wavelength accuracy ±0.3 nm (Xe: 260.6, 484.3, 881.9 nm, Hg: 253.7, 435.8, 546.1 nm)		
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			Wavelength repeatability		
			±0.1 nm		
			Photometric range		
			Abs: -3.3 to 3.3		
			%T: 0 to 300		
			Photometric accuracy		
			$\pm 0.002$ Abs (0 to 0.5 Abs)		
			±0.004 Abs (0.5 to 1.0 Abs) Photometric repeatability		
			$\pm 0.002$ Abs (0 to 1.0 Abs)		
			Scan speed		
			10, 40, 100, 200, 400, 800, 1200, 2400, 4800, 6000 nm/min		
			Wavelength drive speed		
			8500 nm/min		
			Response		
			Fast, Medium, Slow		
			Baseline Stability		
			0.0005 Abs/h (at 260nm)		
			Noise level		
			0.0001 Abs (RMS, 260 nm, 0 Abs)		
			Baseline flatness		
			±0.0009 Abs (200 to 950 nm) Light source		
			Xenon flash lamp 5W (light source is guaranteed for 7 years)		
			Detector		
			Silicon photodiode		
			Cell holder		
			Automatic 6-cell turret		
			Interface		
			LAN Port: connected to a router or PC		
			USB Port: connected to a USB memory for use when transferring		
			CSV-format files		
			Software functions		
			6-cell mode setting function, Automatic monitor power-off time		
			setting fuction, Intelligent start function, Measurement modes,		
			Data/measurement condition saving functions, File search function, Maintenance functions (Wavelength calibration, Lamp usage time		
			monitoring, Sample chamber opening/closing detection,		
			Performance evaluation, Maintenance history storage), Data		
			processing functions, Output capability		
			Computer System		
			Desktop PC (Windows 10, 64 bit)		
			5 GB Storage		
			Warranty		
			One year on parts and service		
			Others		
			1. Vendors must have at least 1 trained engineer and 1 application		
			chemist dedicated to the instrument 2. Certificate of Distributorship from Principal Supplier		
			2. Certificate of Distributorship from Principal Supplier		
2	lot	1	Water Quality Testing Auxilliary Equipment		
1		1	Tube Test Heater - COD Digester		
			and the second se		
			Technical Specifications		
			T 20 1 C 2001 C		
			Temperature range: 30 deg C to 200deg C		
			Temperature stability: 1deg C @ 100 deg C by 120 minutes test Temperature uniformity: < 0.5 deg C @ 100 degC		
			Temperature accuracy: < 1 deg C @ 100 deg C (@ 230V / 50Hz,		
			115V / 60Hz		
			Temperature controller: Pre-calibrated		
			Display and control: Two large size four digit LED		
			displayTemperature calibration: Built-in and pre-calibrated Heating rate: $<18$ minutes from ambient to 100 day C @ 230V		
			Heating rate: <18 minutes from ambient to 100 deg C @ 230V, 50Hz		
			Number of blocks: 1		
			Heat power (Watt): 250 W		
			Over temperature cutoff: 212 deg C		
			Timer: 0 - 999 minutes		
			Power: 120 / 60Hz; 230V / 50Hz, voltage variation < 2%		
			Cabin dimensions (mm): 102 x 78 x 46 (W x D x H)		
			Physical dimensions (mm): 310 x 250 x 80 (W x D x H)		
			Weight without block (kg): 3.3		
			Certification: CE		

2	1	Laboratory Furnace Features Compact Design Asbestos-Free Ceramic Fiber Insulation S Thermocouple Technical Specifications Maximum Temperature - 1200 deg C Temperature Fluctuation - <1 deg C Working Volume - 15 L Dimensions in L x W x H mm - 615 x 450 x 465 Net Weight - 48 kgs Power Supply - 230 V Single Phase - 3500 watss				
3	1	Laboratory Oven				
		Features Suitable for drying, heating, heat preservation, sterilization with hot air, component aging, curing and thermal tests application in laboratories; Corrosion-resistant stainless steel casing; C3030 intelligent controller with delayed start, heating up ramp, end-cycle timer, repeat loop Technical Specifications Working Volume - 112 L Internal Dimensions - 500x450x1000 mm External Dimensions - 664x746x794 mm Weight - 65 kg Temperature Range - 10 deg C to 300 deg C Temperature Fluctuation - <0.2 deg C Maximum Rate of Air Exchange - 9 m3/h Number of Air Outlet - 1 Heating Power - 1500 W Power - 230 V Amperage Connection - 10 A Maximum Load on Oven Shelf - 30 to 60 kg				
4	1	Laboratory Incubator				
		Specifications & Features Volume Capacity: 225 L Temperature range: 0°C - 60°C Temperature consistency: ±0.95°C or better Maximum number of shelves: 17 or more Maximum load: 120 kg or better Water recovery tray Stainless steel inner chamber				
5	2	Glass Dessicator Jar - 300 mm				
6	5	Micropipette Volume - 100-1000ul Features Fully Autoclavable Volume Display				
7	5	Micropipette Volume - 1000ul-5000ul Features Fully Autoclavable Volume Display				
******* Nothing Follows******						