

Technical Specifications

Item No.	Description	Bidder's S
	Lot 1- Analytical Instruments	
1	HPLC Column Oven, Shimadzu - 1 Unit LC: 20AD	
2	HPLC Pump and Mixer - 1 Unit LC-20AD Shimadzu	
3	Vacuum Oven with Shaker - 1 Unit Vacuum range: 0.30"Hg Capacity: 1 cu ft Temperature: 5-200°C	
4	Potentiostat - 1 Unit 3 Electrode Potentiostat Capable of doing: 1. cyclic voltametry 2. linear scan voltametry 3. square wave voltametry 4. stripping techniques (anodic stripping voltametry) 5. amperometry Comes with (if possible 3 of each electrode for free): 1. reaction cell 2. working electrode 3. reference electrode 4. counter electrode 5. computer and software Warranty: 1. Service should be available (by phone or actual service) 2. parts should be available 3. Warranty should be specified. Training: Technician should be able to provide training upon installation of the equipment by doing sample experiments e.g. cyclic voltametry, anodic stripping voltametry	

Item No.	Description	Bidder's S
5	<p>Infra Red Moisture Meter - 1 Unit</p> <p>Measurement range: 0.01% - 100% of moisture content</p> <p>Maximum capacity: 110g</p> <p>Measurement range of solid content 100%- 0.01%</p> <p>Heating temp: 40-200°C</p> <p>Readability: 0.01%</p>	
6	<p>Vacuum Pump - 1 Unit</p> <p>Oil-free or dry</p> <p>Voltage: 220V Max power: 180W</p> <p>Max vacuum: 650mmHg</p> <p>Motor rotation: 1450rpm</p> <p>Horse power: 1/4hp</p> <p>Port thread: 5/16 in or 8mm</p> <p>Dimension (LxWxH): 34x18x20cm</p>	

Item No.	Description	Bidder's S
	Lot 2- Centrifuge and Spectrophotometers	
1	Bench Top Centrifuge - 2 Units Timer: 0-30min	
	Max: RCF xg 1350	
	Capacity: 8x3 to 15mL tubes	
2	Refrigerated Centrifuge - 1 Unit Temp range: -10 to 40°C	
	Max capacity: 50mL x 6	
	Speed: 18,000rpm	
3	Spectrophotometer (visible range) - 1 Unit Double beam Visible spectrum only (325-1000nm)	
4	Microplate 96 Well Elisa Reader - 1 Unit 400-700 spectral range	
	Measuring range: 0-2.5 OOD	
	Detector: 8 solid state detector	
	Calculation: A, [], multistandard curves	
	Built-in printer	
5	Spectrophotometer Microtiter Plate Reader - 1 Unit Physical characteristics:	
	Connectivity: RS232 port	
	Power: 100-240 volts AC 50/60 Hz	
	Dimensions: 8.5"Wx16"Dx8.5"H	
	Weight: 24 lbs (11 kg)	
	General:	
	Detection modes: absorbance	
	Read methods: End, Point, Spectral, Linear Scanning	
	Microplate types 96- and 384-well plates	
	Temperature control 4 Zone mt Incubation: Ambient +4°C	
	to 50°C;	

Item No.	Description	Bidder's S
5	<p>Lot 2- Centrifuge and Spectrophotometers (continuation):</p> <p>Spectrophotometer Microtiter (continuation)</p> <p>Variation $\pm 0.2^{\circ}\text{C}$ at 37°C</p> <p>Shaking: Linear</p> <p>Software: Gentm Data Analysis Software</p> <p>Automation biostack and 3rd Party automation compatible</p> <p>Absorbance:</p> <p>Light source: Xenon flash</p> <p>Wavelength selection: monochromator; selectable 1 nm or greater increments</p> <p>Wavelength range: 200 to 999nm</p> <p>Bandwidth: 5nm</p> <p>Dynamic range: 0-4.0 OD</p> <p>Resolution: 0.001 OD</p> <p>Monochromator wavelength accuracy: $\pm\text{nm}$</p> <p>Monochromator wavelength repeatability: $\pm\text{nm}$</p> <p>OC accuracy: $1\% \pm 0.01\text{ OD}$</p> <p>OD linearity: $\pm 1\%$</p> <p>OD repeatability: $0.5\% \pm 0.005\text{ OD}$</p> <p>Stray light: 0.03% at 230nm</p> <p>Reading speed: 96 wells: 5 seconds,,384 wells: 11 seconds</p>	
6	<p>Multifuge XLR Refrigerated Centrifuge - 1 Unit</p> <p>Temperature range: -10 to 40°C</p> <p>Max RCF x g: 25,830</p> <p>Power: 230VAC, 60Hz</p> <p>RPM: $\geq 24,000$ RPM</p> <p>Display: LCD display of temp, RPM, time and rotor used</p> <p>Operating mode: RPM or RCF and or weight</p> <p>Variable run time: Timer setup for long run and also set time in hours and minutes with</p> <p>Alarm at completion</p> <p>Capacity:</p> <p>Multi-purpose rotors: centrifugation rotors for different volume tubes: 1.5/2.0ml; 15ml; 50ml</p>	

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7	Suitable tubes required for the rotors (200 each set)	
	System with auto lock facility, with safety for over speed/imbalance/temperature	
	Automatic functioning of speed and timing	
	Limit/door detector	
	UPS	
	Centrifuge with Angle Rotor - 1 Unit	
	6 Boreholes for different tubes (max tube size: 85mL)	
	Max RCF: 15,550 x g (11,000rpm)	
	Light weight design: 3.25 incl. Lid for easier handling	
	Material: adonized aluminum for high chemical resistance	
Rotors and lids autoclavable (20 mins, 121 degrees Centigrade)		

Item No.	Description	Bidder's S
1	Lot 3- Processing Equipment	
	Warner Bratzler Shear Machine - 1 Unit	
	With vee-shaped cutting blade	
	Balde thickness: 0.040 inch	
	Spacer providing gap for the cutting blade to slide through	
	Should be about 2.08 mm thick	
	Provided with 0.5 inch cork borer	
	Table Type Silent Cutter - 1 Unit	
	Capacity: 2 kg with stainless steel bowl and blade	
	Knife Rotation: about 24 rpm	
3	Vacuum Packaging Machine - 1 Unit	
	Table-type model	
	With stainless chamber	
	Maximum bag size: 400x500	

4	Bottle Sealer - 1 Unit	
	Manual sealing machine	
	Manually operated	
	Can be used to seal 2 oz, 4 oz, 6 oz, and 8 oz cup	
	Equipped with 75 and 115 mm nest insert	
5	Can Sealer - 1 Unit	
	Can Height: 30-320 mm	
	Can Diameter: 40-220 mm	
	Semi-automatic	
	Warranty: At least one (1) year	

