

BIDS AND AWARDS COMMITTEE FOR GOODS, SUPPLIES, AND SERVICES

October 4, 2018

BID BULLETIN NO. 2 Modifications in the Schedule of Requirements and Technical Specifications

This Bid Bulletin is issued to modify or amend items in the Bidding Documents for the "Supply and Delivery of Laboratory Equipment for BulSU Analytical Testing Laboratory" with Reference No. G-2018-22, and shall form an integral part thereof, to wit:

I. Schedule of Requirements

No.	FROM	ТО
1	ANALYTICAL BALANCE	ANALYTICAL BALANCE
	Specifications:	Specifications:
	Weighing Capacity: 220g Display: Colored Touchscreen Levelling: Manual Repeatability:0.1 mg Linearity: 0.3 mg Typical Stabilization time: 2 s Pan Size: 90 mm Weighing Chamber Height: 209 mm Weight (approx.): 4.5 kg Dimension: (W x D x H): 216 x 360 x 320 mm 1year warranty of parts and service	Weighing Capacity: 220g Display: Colored Touchscreen Levelling: Manual Repeatability:0.1 mg Linearity: 0.3 mg Typical Stabilization time: 2 s Pan Size: 90 mm Weighing Chamber Height: 209 mm Weight (approx.): 4.5 kg Dimension: (W x D x H): 216 x 360 x 320 mm Calibration Test Weight – 200g (E2 class) External Calibration
2	PH Meter (Bench Top) with Buffer	1year warranty of parts and service PH Meter (Bench Top) with Buffer
	Solution (4.0,7.0 and 10) and Calibration Certificate	Solution (4.0,7.0 and 10) and Calibration Certificate
	Specifications:	Specifications:
	pH measurements Range: 2.0 to + 20.0/ 2.00 to + 20.00/ 2.000 to + 19.999 Readability: 0.1/ 0.01/ 0.001	pH measurements Range: 2.0 to + 20.0/ 2.00 to + 20.00/ 2.000 to + 19.999 Readability: 0.1/ 0.01/ 0.001
	Accuracy: ± 0.1 Accuracy: ± 0.1	Accuracy: ± 0.1 Accuracy: ± 0.1
	mV measurements	mV measurements

Range: 1200.0 to + 1200.0/2000 to + 2000 Range: 1200.0 to + 1200.0/2000 to + 2000 Readability: 0.1/1 Readability: 0.1 / 1 Accuracy: $\pm 0.3 / \pm 1$ Accuracy: $\pm 0.3 / \pm 1$ Accuracy: ± 1 digit Accuracy: ± 1 digit Channels: 1 Channels: 1 Connector Type: 2.5 mm phone jack for 10k Connector Type: 2.5 mm phone jack or BNC Design and Quality Connector or DIN Connector for 10k Display Type: LCD Design and Quality Display Size: 75 x 60 Display Type: LCD Dimensions: (W x H x D mm) :190 x 90 x Display Size: 75 x 60 240 Dimensions: (W x H x D mm) :190 x 90 x 240 1year warranty of parts and service 1year warranty of parts and service 3 **Orbital Shaker Orbital Shaker** Specifications: **Specifications:** Type of Movement: Orbital Type of Movement: Orbital Shaker diameter (mm): 10 Shaker diameter (mm): 10 Permissible shaking weight Permissible shaking weight (Inc. attachment) (kg):7.5 (Inc. attachment) (kg):7.5 Motor Rating Input (W): 45 Motor Rating Input (W): 45 Motor Rating output (W): 10 Motor Rating output (W): 10 Permissible ON time (%): 100 Permissible ON time (%): 100 Speed min (adjustable) (rpm): 50 Speed min (adjustable) (rpm): 50 Speed Range (rpm): 0-500 Speed Range (rpm): 0-500 Speed display: LED Line Speed display: LED Line Timer: YES Timer: YES Timer Display: LED Line Timer Display: LED Line Time Setting range (min): 5-50 Time Setting range (min): 5-50 Operating mode: timer and continuous Operating mode: timer and continuous operation operation Shaking table lock: no Shaking table lock: no Dimensions (W x H x D) (mm): 360 x 98 x Dimensions (W x H x D) (mm): 360 x 98 x 420 420 Weight (kg): 8.5 Weight (kg): 8.5 Permissible ambient temperature °C 50-50 Permissible ambient temperature °C 50-50 Permissible relative humidity (%): 80 Permissible relative humidity (%): 80 Analogy output: yes Analogy output: ves Voltage (V): 220-240 / 100-120 Voltage (V): 220-240 / 100-120 Frequency (Hz): 50 / 60 Frequency (Hz): 50 / 60 Power input (W): 45 Power input (W): 45

1year warranty of parts and service

With Accessories

1year warranty of parts and service

4	Ultrasonic Cleaner	Ultrasonic Cleaner
	Includes the ffg. Parts: SS Mesh Basket and Cover	Includes the ffg. Parts: SS Mesh Basket and Cover
	Specifications:	Specifications:
	Temperature Range: 20 to 69 °C (68 to 156°F)	Temperature Range: 20 to 69 °C (68 to 156°F)
	Timer Range: 1-99 minutes	Timer Range: 1-99 minutes
	Operating Frequency: 35 Khz	Operating Frequency: 35 Khz
	Electrical: 117V, 60Hz	Electrical: 117V, 60Hz with AVR
	Capacity: 13.8 L (3.6gal.)	Capacity: 13.8 L (3.6gal.)
	Tank Dimension: 33L x 30W x 15D cm	Tank Dimension: 33L x 30W x 15D cm
	(13 x 1113/16 x 529/32")	(13 x 1113/16 x 529/32")
	1year warranty of parts and service	1year warranty of parts and service

II. Technical Specifications

No.	FROM	ТО
1	ANALYTICAL BALANCE	ANALYTICAL BALANCE
	Specifications:	Specifications:
	Weighing Capacity: 220g Display: Colored Touchscreen Levelling: Manual	Weighing Capacity: 220g Display: Colored Touchscreen Levelling: Manual
	Repeatability:0.1 mg	Repeatability:0.1 mg
	Linearity: 0.3 mg Typical Stabilization time: 2 s Pan Size: 90 mm	Linearity: 0.3 mg Typical Stabilization time: 2 s Pan Size: 90 mm
	Weighing Chamber Height: 209 mm Weight (approx.): 4.5 kg	Weighing Chamber Height: 209 mm Weight (approx.): 4.5 kg
	Dimension: (W x D x H): 216 x 360 x 320 mm	Dimension: (W x D x H): 216 x 360 x 320 mm
	1year warranty of parts and service	<u>Calibration Test Weight – 200g (E2 class)</u> <u>External Calibration</u>
		1year warranty of parts and service
2	PH Meter (Bench Top) with Buffer Solution (4.0,7.0 and 10) and Calibration Certificate	PH Meter (Bench Top) with Buffer Solution (4.0,7.0 and 10) and Calibration Certificate
	Specifications:	Specifications:
	pH measurements	pH measurements
	Range: 2.0 to +20.0/2.00 to +20.00/2.000 to +19.999	Range: 2.0 to + 20.0/ 2.00 to + 20.00/ 2.000 to + 19.999
	Readability: 0.1/0.01/0.001 Accuracy: ± 0.1	Readability: 0.1/0.01/0.001 Accuracy: ± 0.1
	Accuracy: ± 0.1	Accuracy: ± 0.1
	mV measurements	mV measurements
	Range: 1200.0 to + 1200.0/2000 to + 2000 Readability: 0.1 / 1	Range: 1200.0 to + 1200.0/2000 to + 2000 Readability: 0.1 / 1

Accuracy: $\pm 0.3 / \pm 1$ Accuracy: $\pm 0.3 / \pm 1$ Accuracy: ± 1 digit Accuracy: ± 1 digit Channels: 1 Channels: 1 Connector Type: 2.5 mm phone jack for 10k Connector Type: 2.5 mm phone jack or BNC Design and Quality Connector or DIN Connector for 10k Display Type: LCD Design and Quality Display Size: 75 x 60 Display Type: LCD Dimensions: (W x H x D mm) :190 x 90 x Display Size: 75 x 60 240 Dimensions: (W x H x D mm) :190 x 90 x 1year warranty of parts and service 1year warranty of parts and service 3 Orbital Shaker **Orbital Shaker** Specifications: Specifications: Type of Movement: Orbital Type of Movement: Orbital Shaker diameter (mm): 10 Shaker diameter (mm): 10 Permissible shaking weight Permissible shaking weight (Inc. attachment) (kg):7.5 (Inc. attachment) (kg):7.5 Motor Rating Input (W): 45 Motor Rating Input (W): 45 Motor Rating output (W): 10 Motor Rating output (W): 10 Permissible ON time (%): 100 Permissible ON time (%): 100 Speed min (adjustable) (rpm): 50 Speed min (adjustable) (rpm): 50 Speed Range (rpm): 0-500 Speed Range (rpm): 0-500 Speed display: LED Line Speed display: LED Line Timer: YES Timer: YES Timer Display: LED Line Timer Display: LED Line Time Setting range (min): 5-50 Time Setting range (min): 5-50 Operating mode: timer and continuous Operating mode: timer and continuous operation operation Shaking table lock: no Shaking table lock: no Dimensions (W x H x D) (mm): 360 x 98 x Dimensions (W x H x D) (mm): 360 x 98 x 420 420 Weight (kg): 8.5 Weight (kg): 8.5 Permissible ambient temperature °C 50-50 Permissible ambient temperature °C 50-50 Permissible relative humidity (%): 80 Permissible relative humidity (%): 80 Analogy output: yes -Analogy output: yes Voltage (V): 220-240 / 100-120 Voltage (V): 220-240 / 100-120 Frequency (Hz): 50 / 60 Frequency (Hz): 50 / 60

Power input (W): 45
With Accessories

1year warranty of parts and service

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1year warranty of parts and service

4 Ultrasonic Cleaner

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Specifications:

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156°F)

Timer Range: 1-99 minutes Operating Frequency: 35 Khz Electrical: 117V, 60Hz

Capacity: 13.8 L (3.6gal.)

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Capacity: 13.8 L (3.6gal.)

Tank Dimension: 33L x 30W x 15D cm

(13 x 1113/16 x 529/32")

1year warranty of parts and service

This Supplemental/Bid Bulletin no. 2 is issued this 4^{th} day of October, 2018 for guidance and information of all concerned.

DR. ROMEO DC. INASORIA

Chairperson, Bids and Awards Committee Goods, Supplies, and Services