GOVERNMENT COLLEGE UNIVERSITY, FIASALABAD

Comparative Statement for supply of equipments via tender under the Project No. PhosAgro/UNESCO/IUPAC/GCUF Project No. 128

Entitled "Modulation of radiation induced green dyeing of natural fibers using plant derived natural dyes"

Sr.#	Name of Article	Qty	1. M/S Pakistan Analytics Supply, Lahore	2.M/S Flexar Technologies, Lahore	3.M/S New Chemical Centre, Lahore	Payable Amount (Rs.)
			Price	Price	Price	
1.	Spectral Colorimeter	01	N.Q	150,000/-	Technically rejected	150,000/-
2.	Drying Oven	01	216,450/-	170,000/-	N.Q	170,000/-
3.	pH meter	01	70,200/-	50,800/-	55,000/-	50,800/-
	Total Amount (Rs.)		286,650/-	370,800/-	55,000/-	370,800/-
	CDR Required @2% of Bids/Estimated Price		7416/-	7416/-	7416/-	
	CDR Deposited		7416/-	7416/-	7416/-	
	Excess (Shortage)		0	0	0	

1) Certified that 03 bids were received and 03 bids were opened after Technical Evaluation.

2) Certified that **M/S Flexar Technologies, Lahore**, have quoted lowest bid/rates in this Tender.

3) Certified that no departure has been committed from the prevailing rules of Tendering.

4) Certified that net payable amount is **Rs. 370,800/-** against Administrative Approval of **Rs. 370,836/-**.

Dr Shumaila Kiran　　　　　　　　　　**Dr Shahid Adeel**　　　　　　　　　　**Mr. Qamar Bahadur**
(Convener)　　　　　　　　　　　　　　**(Member)**　　　　　　　　　　　　　　**(Member)**

Technical Evaluation Report of Tender No. PhosAgro/UNESCO/IUPAC/GCUF Project No. 128

entitled "Modulation of radiation induced green dyeing of natural fibers using plant derived natural dyes"

Sr.#	Item Name	Specification	Qty	1. M/S Pakistan Analytics Supply, Lahore	2.M/S Flexar Technologies, Lahore	3.M/S New Chemical Centre, Lahore
1.	Spectral Colorimeter	Display Accuracy = 0.01; Light source = LED; calibration = auto; observer = 2°,10°; sensor = CMOS Sensor; wavelength = 400-700nm; battery = Rechargeable, 8,000 times continuous tests, 3.7V/3000mAh; 1light source = 10 years, 1 million tests; screen = IPS full color screen ,2.4 inches	01	**Not applied**	**Technical specifications:** Display: Colour Display size: 2.4 inches Battery: 3.7V/3000mAh Light Source: LED Calibration: Auto Sensor: CMOS Wavelength: 400-700nm	**Technical specifications:** Illuminating/Viewing Geometry: 45°/0° Measuring aperture: Φ8mm Measurement End-face: Large stable end face and small concave-convex end face Detector: Silicon photoelectric diode Locating: Illuminating locating/Cross locating Color Space: CIEL*a*b*C*h* CIEL*a*b* CIEXYZ Light Source: D65 Light Source Device: LED blue light excitation Eorrors between each equipment: ≤0.80 ΔE*ab Storage: 100pcs standards 20000pcs samples Weight: 500g Dimension: 205×67×80 mm Power Source: Rechargeable lithium-ion battery 3.7V@3200mAh Lamp Life: 5 years, more than 1.6 million measurements Charging Time: The first charging time is 8 hours-100% electricity PC Software: CQCS3 software Printer (optional):
					Decision: Accept	**Decision: Reject**

2.	Drying Oven	Setting temperature range = +20 to +250 °C; Volume = 32L; Max. loading of chamber = 60Kg; Housing = rear zinc-plated steel; Programming= Atmo CONTROL software; convection= natural convection; Voltage Electrical load = 230 V, 50/60 Hz approx. 1600 W	01	Technical specifications: Temperature Range: 5°C above ambient up to + 300°C Singe Display Natural convection Adjustment of pre-heated fresh air admixture by air flap control in 10% steps for each segment individually self-diagnostics for fault analysis Digital timer adjustable from 1 minute to 99 days, 23 hours Multiple Over temperature Protection with audible and visual alarm Interior Stainless Steel & textured stainless steel Casing Operatde on 220V, UN Series Capacity 32 Litre Interior dimension: 400 × 320 × 250 mm with single stainless steel tray Model: UN-30, memmert, made in Germany **Decision: Accept**	Technical specifications: Voltage 230V Current: 807A Power: 2000W Temperature range: 220°C±20 Control range: 0-200°C Content: 195L Electrical load: 230V, 50/60 Hz approx. 1600 W External dimensions (W) × (D): 71 × 75 cm Internal dimensions (W) × (D): 55 × 39 cm **Decision: Accept**	**Not applied**
3.	pH meter	pH measuring range = -2.00-16.00, accuracy: 0.02, resolution: 0.01; temperature measuring range = 20.0 to 120.0°C, resolution: 0.1 °C;Battery type/life = 9 1.5V AAA (3) / approximately 200 hours of continuous use. Auto-off after 20 minutes of non-use; Dimensions = 185 x 72	01	**Technical specifications:** Measuring range: -2.00-18.00pH Resolution: 0.01/0.1pH Accuracy: ±0.02pH Display: 6.5 inch LCD screen Paremeters: pH, mV, temperature mV Measuring Range: -1999.00-1999.00 mV mV Resolution: 1mV mV Accuracy: ±0.1%FS	**Technical specifications:** pH range: 0.00-14.00 ± 2 pH resolution: 0.01 pH accuracy: pH ± 0.01 pH calibration: Manual, 2 point, through trimmers, (offset ± 1pH; slope 85-105%) Temperature compensation: Manual, 0 to 100°C (32°F to 212°F) pH Electrode: HI-1230B, combination, double junction, BNC connector, 1 m (3.3″)	**Technical specifications:** pH range: 0.00-14.00pH pH resolution: 0.1pH pH accuracy: pH ± 0.1 EC range: 0 to 6000 µS/cm EC Resolution: 10 µS/cm EC Accuracy: ±2%F.S. TDS Range: 0 to 3000 ppm (mg/L) TDS Resolution: 10 ppm (mg/L) TDS Accuracy: ±2%F.S. Temperature Range: 0 to 70°C Temperature Resolution: 0.1°C Temperature Accuracy: ± 5°C

x 36 mm; Accuracy = ±0.01 pH		Temperature Measuring Range: 0-100°C Temperature Resolution: 0.1°C Temperature Accuracy: ±0.5°C Temperature Compensation: 0-1000.1°C, automatic Calibration: 1,2,3 point, automatic Moder: S-610L PEAK instruments USA	cable (included) Input Impedance: 1012 Ohm Battery Type/Life; 1 × 9V/approx.. 100 hours of continuous use Environment: 0 to 50°C (32°F to 122°F); RH max 95% Dimensions: 185 × 82 × 53 mm (7.3 × 3.2 × 2.1″) Weight: 265 g (9.3 oz)	TDS Conversion Factor: 0.5 ppm (mg/L) = 1 µS/cm
		Decision: Accept	**Decision: Accept**	**Decision: Accept**

1) **For spectral colorimeter,** M/S Flexar Technologies, Lahore has been **accepted technically** , whereas M/S New Chemical Lahore has not been accepted because we need **spectral colorimtre D65 10 ^{0} observer and also for the range 400-700 nm and colour strength (K/S)**, which has not been present in the item quoted by the company, whereas M/S Pakistan Analytics Supply, Lahore did not applied.

2) **For Drying oven,** M/S Flexar Technologies, Lahore and M/S Pakistan Analytics Supply, Lahore the item has been accepted technically.

3) **For pH metre,** M/S Flexar Technologies, Lahore and M/S New Chemical Lahore and M/S Pakistan Analytics Supply, Lahore has been accepted

Dr Shumaila Kiran   **Dr Shahid Adeel**
(Convener/Principle Investigator)   **(Member/Co-PI)**