

Bid Document

Bid Details	
Bid End Date/Time	27-07-2020 16:00:00
Bid Opening Date/Time	27-07-2020 16:30:00
Bid Life Cycle (From Publish Date)	90 (Days)
Bid Offer Validity (From End Date)	30 (Days)
Ministry/State Name	Tamil Nadu
Department Name	Higher Education Department Tamil Nadu
Organisation Name	Bharathiar University
Office Name	Tamil Nadu
Total Quantity	1
Item Category	Water Quality Meters / Analyzers
MSE Exemption for Years of Experience and Turnover	No
Startup Exemption for Years of Experience and Turnover	No
Bid to RA enabled	No
Inspection Required	No

EMD Detail

Required	No
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ePBG Detail

Required	No
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Splitting

Bid splitting not applied.

Water Quality Meters / Analyzers (1 pieces)

Technical Specifications

[* As per GeM Category Specification](#)

Specification	Specification Name	Values	Bid Requirement (Allowed Values)
TYPE / NOMENCLATURE / PROTECTION	Type of Meter / Analyzer	Handheld	Handheld
	Functional nomenclature	Multi Parameter Water Quality Analyzer	Multi Parameter Water Quality Analyzer

MEASURED WATER QUALITY PARAMETERS	Ingress Protection (Main Unit)	IP 67	IP 67
	Calibration	Automatic	Automatic
	Dissolved Oxygen (DO)	Yes	Yes
	DO % Stauration	Yes	Yes
	Conductivity	Yes	Yes
	Resistivity	Yes	Yes
	Salinity	Yes	Yes
	Total Dissolved Solids (TDS)	Yes	Yes
	pH	Yes	Yes
	Oxidation Reduction Potential (ORP)	Yes	Yes
	Ammonium	No	No
	Nitrate	Yes	Yes
	Chloride	Yes	Yes
	Turbidity	No	No
	Depth	No	No
	Temperature	Yes	Yes
	Atmospheric Pressure	Yes	Yes
MEASUREMENT OF DISSOLVED OXYGEN (DO) / DO % Saturation	Dissolved Oxygen (DO) measurement Principle	Electro Chemical (Amperometric)	Electro Chemical (Amperometric)
	Sensor / Probe/ Electrode Type	Polarographic for Electro Chemical	Lifetime Luminiscent for Optical, Polarographic for Electro Chemical, Galvanic for Electro Chemical, NA
	Measurement Range for DO Content (in ppm or mg/l)	0-25	0-25
	Resolution (in ppm or mg/l)	0.01	*
	DO Accuracy (+/-)	2	*
	Measurement Range for DO % Saturation (in %)	0-200	0-200
	Resolution (in %)	0.1	*
	DO % Accuracy (+/-)	2	*
MEASUREMENT OF CONDUCTIVITY (EC)	Conductivity measurement principle	Conductive (contacting)	Conductive (contacting)
	Sensor/ Probe/Electrode Type	4 Cell Electrode	4 Cell Electrode
	Material of Electrode	NA	NA
	Measurement Range (in $\mu\text{S/cm}$)	0-20	0-20
	Resolution (in mho or $\mu\text{S/cm}$)	0.1	*
	EC Accuracy (+/-)	1	*
MEASUREMENT OF RESISTIVITY	Resitivity measurement principle	Conductivity Conversion	Conductivity Conversion
	Lowest Measurement	5	5

	Value for Resistivity (in ohm-cm)		
	Highest Measurement Value for Resistivity (in Mega ohm-cm)	10	10
	Resolution (in ohm-cm)	1,5,10,20,50	*
	Resistivity Accuracy(+/-)	2	*
MEASUREMENT OF SALINITY	Salinity measurement principle	Conductivity Conversion	Conductivity Conversion
	Measurement Range (in parts per thousand or g/l or PSU)	0-20	0-20
	Resolution (in g/l)	0.02,0.2,0.5,1	*
	Salinity Accuracy (+/-)	2	*
MEASUREMENT OF TOTAL DISSOLVED SOLIDS (TDS)	TDS measurement principle	Conductivity Conversion	Conductivity Conversion
	TDS Measurement Range (in parts per thousand or g/l)	0-200	0-200
	Resolution (in g/l)	0.001,0.01,0.02,0.1	*
	TDS Accuracy (+/-)	2	*
MEASUREMENT OF pH	pH measurement principle	Electro chemical	Electro chemical
	Sensor / Probe / Electrode Type	Glass Electrode	Glass Electrode
	Number of Sensors / Electrodes	Single Electrode	Single Electrode
	pH Measurement Range	0-14	0-14
	Resolution (in pH number)	0.02,0.05,0.1,0.5	*
	pH Accuracy (+/-)	1	*
MEASUREMENT OF OXIDATION REDUCTION POTENTIAL (ORP)	ORP measurement principle	Electro chemical	Electro chemical
	Sensor / Probe/ Electrode Type	Platinum Electrode	Platinum Electrode
	Number of Sensors /Electrodes	Single Electrode	Single Electrode
	Lowest Measurement Value for ORP (in mV)	-2000	-2000
	Highest Measurement Value for ORP (in mV)	2000	2000
	Resolution (in \pm mV)	0.02,0.05,0.1,0.2,0.5,1	*
	ORP Accuracy (+/-)	2	*
MEASUREMENT OF AMMONIUM	Sensor / Probe/ Electrode Type	NA	Ion Selective Electrode, NA
	Measurement Range (in ppm or mg/l)	NA	0-100, 0-200, 0-300, 0-400, 0-500, 0-600, NA
	Resolution (in ppm or mg/l)	0.01,0.02,0.05,0.1,0.2,0.5	*
	Ammonium Accuracy (+/-)	10	*
MEASUREMENT OF NITRATE	Sensor / Probe/ Electrode Type	NA	Ion Selective Electrode, NA

	Measurement Range (in ppm or mg/l)	NA	0-100, 0-200, 0-300, 0-400, 0-500, 0-600, NA
	Resolution (in ppm or mg/l)	0.01,0.02,0.05,0.1,0.2,0.5	*
	Nitrate Accuracy (+/-)	10	*
MEASUREMENT OF CHLORIDE	Sensor/Probe/Electrode Type	NA	NA
	Measurement Range (in ppm or mg/l)	NA	NA
	Resolution (in ppm or mg/l)	0.005,0.01,0.02,0.1,0.2,0.5	*
	Chloride Accuracy (+/-)	10	*
MEASUREMENT OF TURBIDITY	Turbidity measurement principle	NA	NA
	Light Source	NA	NA
	Measurement of scattered light	NA	NA
	Lowest Measurement Value for Turbidity (in FNU or NTU)	NA	NA
	Highest Measurement Value for Turbidity (in FNU or NTU)	NA	NA
	Resolution (in FNU or FTU)	0.02,0.05,0.1,0.2,0.5,1	*
	Turbidity Accuracy (+/-)	1	*
MEASUREMENT OF TEMPERATURE	Sensor/Probe Type	Semi Conductor Based Thermister	Semi Conductor Based Thermister
	Lowest Measurement Value for Temperature (°C)	-5	-5
	Highest Measurement Value for Temperature (°C)	50	50
	Resolution (°C)	0.01,0.02,0.1,0.2	*
	Temperature Accuracy (+/-)	1	*
MEASUREMENT OF PRESSURE	Sensor /Probe Type	Pressure transducer	Pressure transducer
	Lowest Measurement Value for Pressure (in mmHg)	450	450
	Highest Measurement Value for Pressure (in mmHg)	825	825
	Resolution (in mmHg)	0.1,0.5	*
	Pressure Accuracy (+/-)	1	*
MEASUREMENT OF DEPTH	Measurement Method	NA	NA
	Depth Measurement Range (in meters)	0-40	0-40
	Length of Cable connecting peobe (inclusive in the scope of supply)	2	2.0
COMPENSATION /	Temperature correction	Automatic	Automatic

CORRECTION	Salinity Correction	Automatic	Automatic
	Barometric Pressure correction	Automatic	Automatic
DISPLAY / STORAGE	Type of Display	LCD	*
	Display Digit Size	20	*
	Number of Digits in Display	3.5	*
	Number of parameters displayed simultaneously	3	*
	Memory (in Data Sets)	20000	*
	Internal memory (GB)	64	*
	In-built GPS	No	*
	Date /time Stamp in Entries	Yes	*
	Connectivity interface	USB	*
POWER SOURCE	Power Source	Rechargeable Battery,Mains (230 ±10 Volts / 50 Hz AC)	*
	Battery Size, if Non Rechargeable Battery	AAA	*
	Battery Chemistry, if Rechargeable Battery	Li-ion	*
	Voltage of each Battery	24	*
	Number of Batteries required for operation	1	*
	Number of Batteries Inclusive in the Scope of Supply	2	*
	Battery Capacity (mAh)	10000	*
	Battery Life	1000	*
	Suitable Adapter to be supplied to make the equipment Work on 230 V ± 10 %, 50 Hz	Yes	*
GENERIC	Armour housing of Sensor / Probe	Stainless Steel	*
	Probe / Sensor / Electrode supplied with equipment	Yes	*
	Number of electrodes supplied	3	*
	Weight	400	*
	Dimensions (mm x mm x mm)	-	*
	Carry Case included in the scope of supply	Yes	*
	Any other features	-	*
	List of Items and Quantity of each item included in the offer	-	*
OPERATING CONDITIONS	Minimum Operating Temperature	0	0.0
	Maximum Operating Temperature	50	50.0

	Operating Humidity, Rh at 40 deg C	70	70.0
WARRANTY	Warranty on Equipment	1	1.0
	Warranty on Probe / Electrode	6	6.0
	Warranty on Cables for Connecting Probe	1	1.0
CERTIFICATION	Availability of Test Reports from Central Govt / NABL approved / ILAC accredited Lab to prove conformity to the specification	No	No
	If Yes, Test Report to be furnished to the Buyer on demand	NA	*
	Test Report No and Date	-	*
	Name of the Lab and Address	-	*

* Specifications highlighted in bold are the Golden Parameters.

* Bidders may note that In respect of non-golden Parameters, the specifications 'Values' chosen by Buyer will generally be preferred over 'Bid requirement (allowed Values) by the Buyer.

Additional Specification Documents

Consignees/Reporting Officer and Quantity

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Jayalakshmi P	641046,The Registrar, Bharathiar University, Coimbatore 641046	1	30

Bid Specific Additional Terms and Conditions

- 1. Bidder financial standing:** The bidder should not be under liquidation, court receivership or similar proceedings, should not be bankrupt. Bidder to upload undertaking to this effect with bid.
- 2. Consortium:** In case of Contracts, wherein the seller alone does not have necessary expertise, the seller can form consortium with other sellers for submission of the bid, with one of the consortium company as leader. However, each and every member of the consortium shall be equally responsible for the complete execution of the project contract. An undertaking to this effect is to be uploaded with bid.
- 3. End User Certificate:** Wherever Bidders are insisting for End User Certificate from the Buyer, same shall be provided in Buyer's standard format only.
- 4. Scope of supply (Bid price to include all cost components) :** Supply Installation Testing Commissioning of Goods and Training of operators and providing Statutory Clearances required (if any)
- 5. Availability of Service Centres:** Bidder/OEM must have a Functional Service Centre in the State of each Consignee's Location in case of carry-in warranty. (Not applicable in case of goods having on-site warranty). If service center is not already there at the time of bidding, successful bidder / OEM shall have to establish one within 30 days of award of contract. Payment shall be released only after submission of documentary evidence of having Functional Service Centre.
- 6. Dedicated /toll Free Telephone No. for Service Support :** BIDDER/OEM must have Dedicated/toll Free Telephone No. for Service Support.
- 7. Escalation Matrix For Service Support :** Bidder/OEM must provide Escalation Matrix of Telephone Numbers for Service Support.

[This Bid is also governed by the General Terms and Conditions](#)

---Thank You---