

## BIRBAL SAHNI INSTITUTE OF PALAEOBOTANY, LUCKNOW

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No.BSIP/Sponsored Project/2013-14/C-018

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Dated: 30.03.2016

Convener  
BSIP Web-site committee  
BSIP, Lucknow

### SPEED POST

Subject: **Quotation for Benchtop Analytical Instrument for TDS and Elemental Analysis**

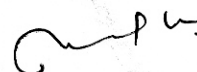
Dear Sirs,

This Institute intends to purchase item mentioned above. Sealed quotations are invited so as to reach this office on or before 5.00 pm on **18.04.2016** duly superscribed by "**Benchtop Analytical Instrument for TDS and Elemental Analysis**" due to open in presence of vendors at a later date to be notified.

While submitting quotation please note that:

1. The material may either of indigenous manufacturer or of foreign make, available from ready stock. Any offer to supply on forward Delivery Basis under suppliers own quota license will also be considered.
2. The price quoted should be F.O.B.Destination.
3. Your rates should include packing, insurance and forwarding charges.
4. The rates of Sales Tax should be clearly indicated wherever chargeable. The tendered should also indicate Central/Sales Tax Registration Number and date in the quotation.
5. Specific mention should be made whether the offer is for supplies available ex-stock. In case the officer is on Forward Delivery basis, firm delivery period must be indicated.
6. The cover should be sealed and superscribed "**Quotation for Benchtop Analytical Instrument for TDS and Elemental Analysis**" must be written on envelope. The quotations not complying the procedure will be rejected.
7. Payments will be made by crossed cheque on the Indian Overseas Bank, Lucknow only after receipt and acceptance of supply and installation/if required satisfactory.
8. The acceptance of the quotation will rest with the Director who does not bind himself to accept the lowest quotation and reserves the right to himself to reject or partially accept any or all the quotation received without assigning any reason.
9. The quotations are liable to be cancelled if any of the above mentioned conditions are not complied with.

Yours sincerely,



( Dr. R.S.Singh )

Scientist 'G' with additional duties of Registrar

## Specification:

The Portable Multiparameter kit with laptop and essential software is required:-

### Portable Multiparameter Meter

Portable Multiparameter Meter for pH/mV/conductivity/Temperature/TDS/Salinity with multipurpose inputs, backlit graphic display, for mobile application with USB interface. It should be complete with electrodes for pH and Conductivity.

### SPECIFICATIONS

pH	-2.000 ... 19.999
mV	+/- (2500 +/-) mV
Temperature	-5.0 ... 105 °C +/- 0.1 °C
Calibration	1-, 2-, 3-, 4-, 5- point DIN, NIST add. 20 buffer sets
Conductivity	0.00 ... 1000 mS/cm +/- 0.5%
Cell constant	Adjustable: 0.090-25.0 cm <sup>-1</sup>
Salinity	0.0 ... 70.0 (acc. IOT)
TDS	0.1 – 1999 g/l
Calibration memory	Up to ten calibrations
AutoRead	Automatic/maual
Celsius/Fahrenheit	Yes
Display	Backlit LCD
Memory	manual 200 / 500 automatic
Logger	manual / time controlled
IP class for portability	IP 67
Interface	Mini USB-B
Power Supply	4 x 1.5 V AA or 4 x 1.2 V NiMH- rechargeable batteries
Battery Life	Up to 800 h without / 100 h with backlit

### PHOTOFLEX Multiparameter Meter

Light source	LED
Wavelengths nm	436, 517, 557, 594, 610, 690 + 860
User-defined methods	100
Methods/software update	Via Internet
Data storage	1000 data sets
pH	0-16
Turbidity	0-1100 NTU/FNU
Accuracy Photometry	<2 nm wavelength accuracy, 0.005 abs. reproducibility ±0.01 pH
pH	
Turbidity	0.01 NTU/FNU or ±2% of the measured value
Calibration: pH / Turbidity	3 point
Interface	RS 232, USB via adapter (optional)
Measuring parameters	Photometry, pH, Turbidity
Battery Type	Type AA batteries 4x1.5 V, for approx. 3000 measurements
Rechargeable battery	Optional: rechargeable battery or LabStation
Test marks	cETLus
Warranty	2 years

Kit should be in light weight carrying case.

The elemental analysis objects along with kit:

S No.	Element / Reagent	Measuring Range
1.	Calcium (Ca)	1.0 – ~250 mg/l
2.	Chloride (cl)	2.5 – ~250 mg/l
3.	Phosphate (PO <sub>4</sub> )	0.05 - ~ 15 mg/l
4.	Potassium (K)	5 – 50 mg/l
5.	Sodium (Na)	10 – 300 mg /l
6.	Nitrate (NO <sub>3</sub> )	0.01 ~15 mg/l