

**TEA RESEARCH ASSOCIATION**  
**Tocklai Experimental Station**  
**Cinnamara, Jorhat-785 008, Assam, India.**

**Tender No. TRA-Tocklai/11-12/T-04**

**Dated 27<sup>th</sup> October 2011**

**Tender Document**

Sealed tenders in two parts (Technical bid & Price bid) are invited by the Director, Tea Research Association from reputed manufacturers / authorized dealers / importers for supply of Instruments / Equipments. Both the bid documents are to put in sealed envelopes separately super scribing the words “**Technical Bid** “ & “ **Price Bid**” which are to be put together in the sealed envelope super scribing the Tender No. The details of instruments / equipments are shown in ‘**Annexure – A**’ enclosed herewith.

Last date of issue/receipt of tenders: 18.11.2011 (8-30 a.m. – 5.00 p.m.)

**Terms and Conditions:**

- 1) The tenderer should submit the following documents along with the tender:
  - a) Dealership certificate/authorization certificate
  - b) List of users
  - c) Up-to-date sales tax /income tax clearance certificate
- 2) Earnest money 2% of the quoted amount is to be deposited by the tenderer in the form of Bank draft/Bankers certificate in favour of the Director, Tea Research Association payable at Jorhat.
- 3) Tenders must accompany with the product catalogues/ specification
- 4) Tenderers must quote the warranty period of the product.
- 5) Tenderers must quote the year-wise rate for AMC & CMC separately for a minimum period of 5 years beyond the warranty period.

TRA reserves the right to accept or reject the bids without assigning any reason thereof.

The tender document can be obtained from the office of the undersigned during working days from Monday to Friday (8-30 a.m to 5.00 p.m.) or **may be down loaded from the website – [www.tocklai.net](http://www.tocklai.net)**.

Tender should be accompanied by separate Bank draft of Rs.300/- as tender cost (non refundable) and Earnest Money 2% of the quoted amount. Both the drafts should be drawn in favour of the Director, Tea Research Association payable at Jorhat. **The drafts for EMD and Tender Cost should be enclosed with “Price Bid” only.** All tenders should be sent to the following address:

The Director,  
Tea Research Association  
Tocklai Experimental Station,  
Cinnamara, Jorhat-785 008, Assam.

**DIRECTOR**

## Annexure - A

### Equipment and Specification

Sl.No.	Equipments Instruments	Specifications	Qty required
1.	Atomic Absorption Spectrophotometer (AAS)	Standard Make – with 12 single hallow cathode lamp (HCL)-Zn, Mn, Cu, Mo, Fe, Pb, Cr, Cd, Ni, Ca, Mg)	1
2.	Open Top Chamber (OTC)	<p>Standard Make –</p> <p>Open top chambers (OTC) 4m diameter 3m height covered with 4mm double walled poly carbonate chaect with open top area of 7 feet (a) suitable for ambient monitoring (b) suitable for elevated carbon dioxide and temperature up to 1-3 degrees Celsius with reference to ambient temperature. Thermal mass flow meter for pure CO2 measurement. NDIR based microprocessor controlled CO2 analyzer (IRGA) with ) – 1000 ppm range Accuracy +1%FS. Linearity; 1% FSD; <u>response time less than 2 Secs; Oper. Temp range upto 50 degree Celsius. Alongwith :</u></p> <ol style="list-style-type: none"> <li>1. Gas sampling system with all accessories</li> <li>2. Pure CO2 injection system suitable for generating sonic speeds, one cm with upto 4ft adjustable length</li> <li>3. OT-MATIC Control system</li> <li>4. 4. Panel to accommodate OT-MATIC, co@ analyzer, suction pump, Solenoid valves and all other accessories e. g. cabling PU tubing for suction &amp; injection of CO2 with all fittings</li> <li>5. Air Temp and Humidity sensor : Temperature sensor should be standard plantinum RTD element mounted inside a plantinum weather shield , Range – 40 to + 60 degree Celisus; 0.1 degree Celsius resolution accuracy + 0.2 deg Celus.</li> </ol>	1
3.	Dehumidifier	Standard make: Area(approx.) 8 Ft – 10 Ft (Room Size)	1

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