

**GOVERNMENT OF INDIA
ANALYTICAL CHEMISTRY DIVISION
BHABHA ATOMIC RESEARCH CENTRE**

Ref:

13/12/2021

TENDER No: BARC/ACD/501/MF/RBA4013/2021/22 dated 09/12/2021

TENDER DUE DATE: 24/12/2021

Sub: Technical Supports for Analytical and Experimental Works

Dear Sir/ Madam,

Quotations are invited on behalf of Head, Analytical Chemistry Division in sealed envelope for *Technical supports for analytical and experimental works at ACD* as per following specifications, terms and conditions:

TECHNICAL SPECIFICATIONS:

Scope of work& Quantity: The scope of work includes the followings:

Sr No	Name of job	Qty (No)
1.	Sample preparation	500
2.	Weighing of samples	500
3.	Sample analysis using spectroscopic techniques like UV-Visible Spectrometer, Spectrofluorimeter, AAS and Electro-analytical System	4000
4.	Solution preparation in size of 50 – 250 ml	500
5.	Titration/ Gravimetric studies in 125/ 250 ml beaker	500
6.	Filtration of Samples	500
7.	Dissolution of Samples	300
8.	Maintenance of Lab	500
9.	Maintenance and calibration of Instruments	500

For detailed job description and other requirements please refer to **Appendix - A** of this specification. The jobs are to be carried out in different laboratories of ACD (Mod Labs and OTS, South Site).

TERMS AND CONDITIONS

Note: [Reference: (2/Misc-9/Lgl/2001/92 dated April 30, 2001, BARC)]

- I. Confidentiality:** No party shall disclose any information to any third party concerning the matters under this contract generally. In particular, any information identified as **“Propriety”** in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party.

This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by a party with equal force.

- II. “Restricted information” categories under Section 18 of the Atomic Energy Act, 1962 and “Official Secrets” under Section 5 of the Official Secrets Act, 1923:-**

Any contravention of the above –mentioned provisions by any contractor, sub-contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.

- III. Prohibition against use of BARC’s name without permission for publicity purposes:**

The contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use BARC's name for any publicity purpose through any public media like Press, Radio, TV or Internet

PRICE: Offered cost should be inclusive of total scope of work mentioned above. Maximum possible cost break up for various items and accessories, taxes and other charges, if any, is to be provided.

VALIDITY: Price quoted should be valid throughout the currency of the contract.

TAX: As applicable, should be clearly indicated in the offer.

COMPLETION PERIOD: The job is to be completed within eighteen months from the date of receipt of the order. Any delay which is attributable to the contractor is liable for penalty @ ½% per week (max. 5 %) to be imposed on the contractor. Extension required, if any, is to be applied before validity of the Work Order is over, with proper justifications.

Cess on IT: Cess on Income Tax @ 2% shall be deducted from vendor's bill.

PAYMENT: 100% including taxes after receipt of the unit at our site, successful commissioning and submission of the following documents:

1. Advance Stamped Receipt.
2. Original Bill.

Special Notes:

- Vendor should have security vetting from BARC.
- The vendors have to depute technically qualified manpower (BSc with Chemistry as one of the major subject with minimum two years working experience in analytical laboratories Or MSc in Chemistry from a Government approved university) or persons with at least 7 years with experience of working in chemical analytical laboratories.
- The vendor has to arrange for valid PVC for all workers to work inside BARC.
- Safe handling of chemicals, equipment and instruments are to be ensured by the vendor through proper supervision.
- Safety goggles, paper masks, PVC shoes, aprons, soaps, duster and towels are to be provided by the vendor for all their persons coming for this work in required quantity.
- Sufficient manpower is to be provided on each working day to keep the work movement smooth. This will be decided based on the requirement from BARC side.
- All safety & security guidelines that may be provided by BARC are to be strictly followed during execution of the work order.

Please mention clearly the tender number, due date, party's name and subject on the top of the envelope duly sealed and addressed to Head, Analytical Chemistry Division BARC, Trombay, Mumbai -400 085.

The quotations should be sent by speed/ordinary/registered post to the above address and timely delivery of the quotation is to be ensured by the party. Private courier services are not allowed.

Note: Please mention your PAN No, S.T. No & VAT TIN No with the offer. Otherwise the offer is liable for rejection.

डॉ. संजुक्ता ए. के. / Dr. Sanjukta A. K.
अध्यक्ष, रसायन विश्लेषण विभाग
Head, Analytical Method Section
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Analytical Chemistry Division
भाषा केंद्र, ट्रॉम्बे / BARC, Trombay
मुंबई / Mumbai - 400 085.

Spats
13/12/2014
(Sanjukta A. K)
SO/G, ACD, BARC
Tel: (022) 25590316

A. Detailed Scope of work

1. **Sample preparation:** This will involve preparation of solid samples through
 - a. Blending and mixing of 2 or more miscible liquids in predetermined quantities
 - b. Blending of two or more salts/ powders in measured amounts
 - c. Sieving of powders
 - d. Approx time required for the job: 25 - 30 minutes/sample
2. **Weighing of samples:** This job will involve weighing of samples on balance .Approx time required for the job: 5/10 mins/sample
3. **Sample analysis using spectroscopic techniques like UV-Visible Spectrometer, Spectrofluorimeter, AAS and Electro-analytical System:** This will involve step by step procedures prescribed for the instrument concerned, sample feeding, analysis and data recording. All readings are to be repeated 3 times for accurate results. Approx time required for the job: 5 mins - 2hrs/sample
4. **Solution preparation in size of 50 – 250 ml:** This job will involve preparation of various reagents and solutions as standards for laboratory use. The solutions are to be kept in proper containers with labels containing the details. Approx time required for the job: 45 min - 1hr/ sample
5. **Titration studies at 125/ 250 ml beaker:** Titration of various samples produced in the experiments is to be carried out with prescribed reagents and indicators. Also, for some cases, electrode based titration may be performed by proper instruments. All titrations are to be repeated 3 times for accurate results. Approx time required for the job: 45 min - 1hr /sample for 1 person.
6. **Filtration/ Centrifuge of Samples:** This will include filtration by using filter paper and funnel. Also by using suction pump as well as ultra-filtration. Samples are centrifuged in instrument. Approx time required for the job: 15-mins-1hrs/ experiment for 1 person.
7. **Dissolution of Samples:** This job includes dissolution of samples as per procedure by using microwave digestion to dissolve solids into liquids. Approx time required for the job: 8-10workinghrs/ experiment for 1 person.
8. **Maintenance of Lab:** This job includes cleaning of laboratory working tables, fume hoods. Cleaning of glassware for Lab. Filling of Deionized Water Tank from water purifier in Lab. Filling of acid bottles in fume hood from stock bottles. Approx time required for the job: 25 - 30 minutes / for 1 person.
9. **Maintenance and calibration of Instruments:** This job includes cleaning of Instruments and its working tables, exhausts. Operating dehumidifier & Air-conditioned in rooms. Approx time required for the job: 10 - 15 minutes / for 1 person.

B. Terms and conditions:

1. BARC will provide all instruments, chemical reagents, working facilities and services required for carrying out the works.
2. BARC representatives will provide necessary operational and safety guidance to the persons coming for work, hence it will be required not to change the people deputed for the work frequently.
3. The analytical equipments and experimental facilities are to be handled with proper precautions to prevent any damage that may occur to personnel, equipment or samples.
4. All the data pertaining to the experiments and analysis are to be recorded properly and presented on daily basis. No data shall be taken outside in any form.
5. Any problem found in equipment/ system is to be reported immediately.
6. Cleanliness and good peaceful working environment is to be maintained meticulously.
7. Experiments/ analysis are to be carried out strictly as per instructions only.