



PERIYAR UNIVERSITY

Reaccredited with 'A' Grade by the NAAC

PERIYAR PALKALAI NAGAR

SALEM – 636 011

TENDER NOTICE

No. PU/R/PL&D2/RUSA/Equipment purchase-3/2017

Date: 21.11.2017

Sealed tenders will be received by the Registrar, Periyar University, Periyar Palkalai Nagar, Salem – 11 upto 11.00 A.M. on **26.12.2017** for the **Purchase of (i) Gas Chromatography-Mass Spectrometer (GC-MS), (ii) Atomic Absorption Spectrometer (AAS) for RUSA grant Fund in the Periyar University** from reputed firms. The intended tenderers should show their credentials and get concurrence of the Registrar before purchase of tender schedules. Tender schedules can be had from the undersigned from **29.11.2017** to **25.12.2017** between 11.00 A.M and 4.00 P.M on payment of demand draft drawn in any nationalized bank in favour of the Registrar, Periyar University, payable at Salem as detailed below. Tender should reach this office on or before 11.00 A.M. on **26.12.2017**.

Tenders to be opened on **26.12.2017** at 12.00 noon in our office

The EMD in the form of demand draft should be drawn in any Nationalised bank in favour of the Registrar, Periyar University, payable at Salem.

Sl.No	Description	Qty.	Cost of tender documents (Including GST 18%)	EMD Rs	Time of completion of supply
1.	Gas Chromatography-Mass Spectrometer (GC-MS)	01	Rs. 17,700/- (Cost-Rs. 15,000/- + GST 2,700/-)	EMD at 1% of the Instrument Value	10 days
2.	Atomic Absorption Spectrometer (AAS)	01			

(Specifications are Overleaf)

REGISTRAR

No. PU/R/PL&D2/RUSA/Equipment purchase-3/2017

1. Specifications: Gas Chromatography-Mass Spectrometer (GC-MS)

Brand name:

Thermo/Perkin Elmer/Agilent/Shimadzu or Equivalent

Mass Spectrometer

Mode (standard) : EI

Modes (optional) : PCI, NCI, EI with CI source

Ion source type : Noncoated inert EI source

Ionization energy : 5–241.5 eV

Ionization current : 0–315 μ A

Transfer line temperature : 100 °C–350 °C

Ion source temperature : 150 °C–300 °C

Quadrupole temperature : 150 °C–200 °C

Mass filter : Monolithic hyperbolic quadrupole

Mass filter protection : Entrance lens

Mass range : 1.6–800 amu

Mass resolution : Unit mass adjustable by tune

Mass axis stability: Better than 0.10 amu/48 h

Detector : EM with replaceable horn

Dynamic range (electronic) : 10e6

Scan rate (electronic) : 10,000 amu/s

Write-to-disk : 8,000 amu/s

SIM : 30 ions x 50 groups

Pumping system : Turbomolecular pump

Total flow : 2 mL/min (standard turbo)
4 mL/min (performance turbo)

Instrument control : Data system and local user interface

Maintenance access : Source, filaments, lenses, mass
filter, and detector on removable plate

Maintenance scheduling : Early maintenance feedback

Gas Chromatograph

Automatic injector (optional) : Automatic alignment, fast injection

Liner replacement : Compatible with optional flip-top
inlet sealing system

Injector : Split-splitless (standard), others available

Oven temperature : Ambient +4 °C– 450 °C

Oven ramps/plateaus : 6/7

Carrier gases : Helium, hydrogen, nitrogen, argon

Electronic pneumatic control : Auto pressure regulation for
split/splitless, septum purge

Carrier gas control modes : Constant pressure and flow
modes; pressure and flow
programmable

Pressure range : 0–100 psi (standard), 0–150 psi (optional) with 0.01 psi
resolution, pressure and temperature corrected

Retention-time locking : RTL ready

Flow control : Compatible with optional microfluidics controller

Data system

Simultaneous MS and GC : Four signals (up to 2 MS)
detector data acquisitions

Ionization mode autotunes : EI, PCI, NCI

Application autotunes : BFB, DFTPP

Quantitation setup : Automated

Application reports : Environmental, drugs of abuse,
aromatics in gasoline

File import/export: Sequence file/quant and custom
report

Customization : Macro language, report writer

Security : Password and audit trail

Spectral libraries (optional) : NIST, Wiley, Pfleger-Mauer Drug,
Stan pesticide

Spectral and RTL : Pesticides and endocrine
databases (optional) : disrupters, volatiles, PCBs,
toxicology, FAMEs, flavors, organotin compounds

21CFR11 Compliance : Optional software available

Other capabilities (optional) : Deconvolution linked with RTL
database

Support life : Ten-year use guarantee

Physical (EI system with standard turbo)

Dimensions : 88 cm (w) x 56 cm (d) x 50 cm (h)

Weight : 88 kg

UPS/AC

Suitable online UPS for un-interrupted data collection of up to one hour.

2 Ton A/C – 1 No

2. Specifications of Atomic Absorption Spectrometer (AAS)

Brand name:

Thermo/Perkin Elmer/Agilent/Shimadzu or Equivalent

AAS consist of:

1. Lamp with integrated spectrometer
2. Desktop PC [Windows 10.0; 2GB DDRAM, Pentium dual core 3.5 GHz, 1.0 TB HDD], LED Monitor, Laser Color printer
3. SpectrAA base and Pro software
4. PSD 120, 120 GTA
5. GTA camera and connecting cables
6. Ultra AA lamp control module
7. Fume extraction system
8. 130 sample Carousel kit

Technical Specification

- Item : Atomic Absorption Spectrometer
- Type : Benchtop Zeeman background correction
- Dimensions : (W x D x H) 79 x 58 x 59 cm
- Software : SpectrAA software
- Wavelength Range: 185 – 900nm
- Power : 3500 VA
- Lamp type : Ultra AA lamps (8 lamps)
- Configuration : Double beam
- Vaporization : Graphite furnace atomization
GTA 120 Zeeman Graphite tube atomizer
- Optics : Narrow beam optics – Automated self
calibrating 330 mm Czerny – turner
monochromator
- Auto sampler : Furnace auto sampler
- Magnetic field
Strength : 0.1 – 0.8 Tesla