

## **SPECIFICATION FOR HIGH PERFORMANCE LIQUID CHROMATOGRAPH:**

Earnest Money: Rs. 60,000.00

**The HPLC System should have of the following minimum (Basic) specification (All the specification of the participated vendors should be supported with valid literatures and web site documentations.**

HPLC system and the column chemistries should support to analyze organic compounds, drugs, narcotics substances, drug of abuse analysis and toxin analysis.

### **HPLC Pump :**

Quaternary Gradient Pump (4 solvents) with inbuilt degasser, with a flow rate of 0.01 -10 ml/min or better and pressure range of 9000psi or better for the entire flow rate range.

Flow rate accuracy of  $\pm 0.1\%$  or better and Flow precision of  $< 0.075\%$  RSD or better and with built in 4 channel vacuum degasser. Solvent rack and solvent bottles (at least four) also to be quoted

### **Auto Sampler :**

Auto sampler with minimum 25 to 100 injection vials or better and injection volume range of up to 100  $\mu$ l or better, With minimum Carry Over :  $< 0.05\%$  or better for caffeine. Needle wash should be standard and integrated.

### **Column oven:**

Temperature Ranges 5 °C to 80 °C or better

Temperature Accuracy:  $\pm 0.5$  °C or better

Temperature Stability:  $\pm 0.1$  °C or better

Temperature Precision:  $\pm 0.1$  °C or better

### **Photo Diode Detector:**

Lamp source: D2 lamp for UV range and tungsten lamp for visible range or any other suitable source and wavelength range of: 190-900 nm or higher with suitable analytical flow cell.

Lamp temperature control facility should be available for better sensitivity & accuracy with 3D data acquisitions

Lamp Optimization facility should be available with the detector.

Data acquisition speed: 100Hz or better

### **Column:**

Suitable column chemistries should be quoted along with Guard columns.

Separate columns to be offered for the analysis of various drugs compounds, narcotic substances ,drug of abuse analysis and toxin analysis.

Dimension preferable: 4.6x250mm, 5um particle size from the same OEM supplier.

### **CDS Software:**

Latest version of the software should be a strictly validated/original licensed copy software with specific part number mentioned in the offer [No Pirated version of the software will be allowed and if found the offer will be strictly rejected] along with latest version computer/laser printer with original operating software should be quoted. All automated LC calculations facility should be available. Free up gradation of software. The system should be capable enough to programme at least 1-9 different Gradient curves like (Linear, Convex, Concave etc.).

### **Computer & Printer:**

A suitable branded Computer for system control & data acquisition. It should have following minimum specs: i3 processor, 4GB RAM, 500GB HDD or above, DVD combo drive, 2 USB Ports, 19" TFT Color Monitor, Keys Keyboard, Optical mouse, HP LaserJet Printer with scanner.

### **UPS:**

3KVA online UPS with minimum 30 minutes back-up to be quoted. System should be upgradable with additional accessories without changing any existing accessories up to LCMS/MS.

### **Air Conditioner:**

1.5 ton split.

Onsite service/maintenance charges, from 2<sup>nd</sup> year to 4<sup>th</sup> year should be included along with the offer.