

**Food, Civil Supplies & Consumer Affairs Department  
(Govt. Of Himachal Pradesh)**

**Subject: Corrigendum against Tender No. FDS:24(Modernisation of Lab/2017)Vol-I(T-4) for purchase of machineries and equipments for Departmental Laboratory by Food, Civil Supplies & Consumer Affairs Department Himachal Pradesh**

With reference to pre bid meeting on 08.03.2022 and queries from the perspective bidders in respect of Tender No. FDS:24(Modernisation of Lab/2017)Vol-I(T-4) regarding purchase of machineries and equipments for Departmental Laboratory by Food, Civil Supplies & Consumer Affairs Department Himachal Pradesh, the following amendments have been made in the tender document for healthy and transparent competition among interested bidders. The amendments are as under:

**1. INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER (ICP-MS) ALONG WITH ALL ACCESSORIES AND SAMPLE PREPARATION FACILITY**

S. No.	Main Heads/ Components	Prescribed Specifications in tender document	Revised specifications as per pre-bid
14	<b>Multi vessel Microwave digestion system</b>	The system should be provided with a suitable microwave digestion system of 20- 25 samples processing capacity in one batch along with proper fume hood system. The specification along with the model should be provided at the time of tendering.	<p>The system should be provided with a suitable microwave digestion system of 20- 25 samples processing capacity in one batch along with proper fume hood system.</p> <p><b>1. MICROWAVE POWER:</b> 2000 watts or more using 1 or 2 magnetrons.</p> <p><b>2. MULTI VESSEL HIGH PERFORMANCE ROTOR:</b> System should be offered with lightweight rotor with high pressure strength such as Al material with high pressure strength up to 150 bar having min. 24 positions or more with 24 vessels.</p> <p><b>3. OPERATING TEMP:</b> 250 °C or more</p> <p><b>4. OPERATING PRESSURE:</b> 45 bar or more</p> <p><b>5. VESSEL VOLUME:</b> 50 mL or more</p> <p><b>6. SAMPLE WEIGHT:</b> Min. 1.5 gm or more per vessel</p> <p><b>7. HANDLING &amp; SAFETY:</b> Closure of the vessel must be possible by</p>

		hand and overpressure release mechanism of the vessel must be controlled by means of metal springs for precise opening pressure independent of the reaction temperature or sample weight.
		<b>8. EXHAUST AND COOLING:</b> Instrument should have built in exhaust for cooling the vessels inside the oven.

**Note. 6:** For the installation of ICPMS the electricity connection as per requirement, the water connection with requisite space will be provided to L-1 bidder. However, all the accessories including the benches, tables etc. to install the ICPMS and make the instrument functioning will be provided by the L-1 bidder along with the demo of operation.

## 2. HIGH PERFORMANCE LIQUID CHROMATOGRAPH (HPLC) With PHOTODIODE ARRAY (PDA), FLUORESCENCE (FLD) AND REFRACTIVE INDEX DETECTOR (RID)

S. No.	Main Heads/ Components	Prescribed Specifications in tender document	Revised specifications as per pre-bid
<b>1. Quaternary Gradient System with Online Degasser:</b>			
	Pressure operating range	8500 psi or <b>better</b>	8500 psi or <b>higher</b>
	Gradient Mixer	3. Gradient Profiles which include gradient curves: <b>linear, step, concave, and convex</b>	Gradient Profiles which include gradient curves
	Gradient Mixer	4. Composition Precision 0.20% RSD or +/- 0.04 min SD, whichever is greater, based on retention time	Composition/Precision 0.20% RSD or +/- 0.04 min SD, whichever is greater, based on retention time
<b>2. PDA Detector</b>			
	Wavelength range	190-750 nm with inbuilt <b>Holmium oxide</b> filter	190-750 nm with inbuilt filter
	Linearity range	<5% at 2 AU, 257 nm	<5% at 2 AU, 257 nm <b>or higher</b>
<b>3. RI Detector</b>			
	Drift	1 x 10 <sup>-7</sup> RIU/hr	1 x 10 <sup>-7</sup> RIU/hr <b>or higher</b>
	Cell Volume	Approximately 10 µL	<b>8 µL or above</b>

	Temperature Operating Range	5° below 25 °C to 50°C.	5° <b>above</b> 25 °C to 50°C.
<b>4. Fluorescence Detector</b>			
	Excitation Wavelength	Range 200-850 nm	Range <b>200-630 nm or higher</b>
	Emission Wavelength	Range 220-900 nm	Range <b>265-650 nm or higher</b>
	Sensitivity	should be S/N > 1000 (Raman Spectrum of H <sub>2</sub> O) as per ASTM Method	should be S/N > <b>550</b>
	Data Acquisition range	should be up to 80 HZ Cell volume should be < 2 microliter	should be up to <b>74 HZ</b> Cell volume should be <b>8 µL</b>
<b>5. Column Oven with preheating capability</b>			
	Temperature range	10 to 90° C	<b>5 to 85° C or higher</b>
<b>6. Auto sampler</b>			
	Injection Mode	Total vol. Inj / Variable Inj method	Total vol. Inj / Variable Inj method / <b>Equivalent</b>
	Sample Capacity	>80 x 2 ml vials or more	>80 x <b>1.5ml</b> /2 ml vials or more
	Injection Volume Accuracy	±1%	<b>Delete the specification</b>
	Cross contamination	<0.1% with & without automated needle wash	Cross contamination/ Carry over: <0.1% with & without automated needle wash/0.005% from previous injection
	Carry over	0.005% from previous injection	
	Tray Temperature Operating Range	4 - 40 ° C or more <b>with ±0.5 °C accuracy</b>	4 - 40 ° C or more

**Note. 3:** For the installation of HPLC the electricity connection as per requirement, the water connection with requisite space will be provided to L-1 bidder. However, all the accessories including the benches, tables etc. to install the HPLC and make the



instrument functioning will be provided by the L-1 bidder along with the demo of operation.

**Note. 4:** All the specifications/values given are to be proved by L-1 bidder during the time of installation/demo, specifically, Injection Volume Accuracy (approx.  $\pm 1\%$ ), Tray Temperature Operating Range (approx.  $\pm 0.5^\circ\text{C}$  accuracy) etc.

### 3. LOVIBOND TINTOMETER

The SLPC committee rejected the suggestion to remove the prefix 'Lovibond' and remain as it is 'Lovibond Tintometer' in Tender document.

### 6. UV -VISIBLE SPECTROPHOTOMETER

S. No.	Main Heads/ Components	Prescribed Specifications in tender document	Revised specifications as per pre-bid
	System	A fully automated PC Controlled spectrophotometer with double beam optics with pre-programmed applications using conventional quartz cuvettes with all the required accessories.	A fully automated PC Controlled spectrophotometer with double beam optics with <b>dully programmed</b> applications using conventional quartz cuvettes with all the required accessories.
	Light Source	(1) Halogen lamp for Visible range (2) Deuterium Lamp for UV range Light source should be auto automatically selected as per wavelength required.	(1) Halogen lamp for Visible range <b>or Equivalent</b> (2) Deuterium Lamp for UV range <b>or Equivalent</b> Light source should be auto automatically selected as per wavelength required.
	Wavelength Range	185 -1100 nm	<b>190 -1100 nm</b>

### 7. MILLI-Q WATER PURIFICATION SYSTEM

S. No.	Main Heads/ Components	Prescribed Specifications in tender document	Revised specifications as per pre-bid
	<b>MILLI-Q WATER PURIFICATION SYSTEM</b>	-	<b>'MILLI-Q WATER PURIFICATION SYSTEM'</b> is brand name therefore, it is to be replaced in Tender document with <b>'ULTRA WATER PURIFICATION SYSTEM'</b>

**Note. 5:** All the bidders will specifically mention the requisite space for installation of instruments along with capacity of electricity power to be provided by the department.

**Note: Other terms and conditions of the tender document shall remain unchanged.**