

**Pre bid Queries and Response for the project “Selection of Bidders for Supply of PM10, PM2.5, Spectrophotometer  
And Digital Balance in Chhattisgarh”**

**4) M/s BHARAT CHEMICALS, KORBA**

<b>Sr. No.</b>	<b>TENDER Document Reference(s) (Section &amp; Page Number(s))</b>	<b>Content of TENDER requiring Clarification(s)</b>	<b>Points of Clarification</b>	<b>CECB’s Response</b>
1	Tender No. 05/HO/CECB/SCI/Air-Sampler/E-Tender/2019-20  SECTION V: SPECIFICATIONS FOR SPECTROPHOTOMETER  Page No: 19	Sr. No: 2  Specification: Source  Requirement: Xenon flash lamp (80 Hz) with typical lifetime of 7-10 years	We suggest it should be Deuterium and Tungsten lamp.	The tender condition shall prevail.
2	Tender No. 05/HO/CECB/SCI/Air-Sampler/E-Tender/2019-20  SECTION V: SPECIFICATIONS FOR SPECTROPHOTOMETER  Page No: 19	Sr. No: 3  Specification: Detector  Requirement: 2 silicon diode detectors for simultaneous sample beam and reference beam measurements	We suggest it should be "One Silicon photo diode".	The tender condition shall prevail.
3	Tender No. 05/HO/CECB/SCI/Air-Sampler/E-Tender/2019-20  SECTION V: SPECIFICATIONS FOR SPECTROPHOTOMETER  Page No: 19	Sr. No: 5  Specification: Spectral bandwidth  Requirement: Up to 2 nm	We suggest it should be "Variable Spectral bandwidth: 0.5 / 1 / 2 / 4."	The tender condition shall prevail. However, it may be noted that requirement is of upto 2nm not 2 nm.

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**5) M/s ACZET PVT LTD, MUMBAI**

Sr. No.	Points of Clarification	CECB’s Response
<b>Section VI – Digital Balance</b>		
1	<p>Microbalance application for Pollution Control lab is used for measuring PM2.5 and PM10 dust particles weight on filter paper. For this application weighing cap 6 gm is well sufficient for the weightment instead of cap 35 gm mentioned in your specification. Also commercially Cap 35 gm machine price will be approximate 300 % higher than Cap 6 gm.</p> <p>Therefore, we suggest our view to amend the weighing capacity from 35 gm to 6 gm with accuracy 1 microgram.</p>	Weighing Capacity – Minimum 30 gm
2	<p><b><u>Weighing pan:</u></b> As per specification it is mentioned as 62x62 mm, weight 170 g. We suggest that weighing pan of 50 mm diameter which is well sufficient for filter paper weighing.</p>	Weighing Pan – Pan size should be of minimum 50mm diameter.
3	<p>We also provide optional accessories Antistatic Ionizer along with our filter micro balances</p> <p><b><u>We also like to inform you that other tenders technical specification from Pollution Control Board in Pan India are of weighing capacity 5-6 gm, with pan size 50 mm dia.</u></b></p>	-----

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**1) M/s SURANA ENTERPRISES, RAIPUR**

<b>Digital Balance</b>					<b>CECB's Response</b>
<b>Sr. No.</b>	<b>Specification</b>	<b>Requirement</b>	<b>Request Amendment</b>	<b>Reason</b>	
1	Weighing Capacity	35 g	Minimum 30 g	To make more participation.	Weighing Capacity – Minimum 30 gm.
2	Readability	1 µg	No amendment required		The tender condition shall prevail.
3	Linearity	10 µg	10 µg - 15 µg	Please provide relative range to make more generic	-----
4	Repeatability	± 2 µg	No amendment required		The tender condition shall prevail.
5	Weighing Pan Stainless steel Weighing Units	g,oz,ct,gn	No amendment required		The tender condition shall prevail.
6	Display	backlit LCD display	No amendment required		The tender condition shall prevail.
7	Dimension scale	approx.120 x 80 x25 mm	No amendment required		The tender condition shall prevail.
8	Weighing Pan	approx. 62 mm x 62 mm Weight 170 g	Please ammend the pan size that it should not less than 50 mm	As membrane used for filter weighing is not more than 47 mm and hence 50 mm can be mentioned.	Weighing Pan – Pan size should be of minimum 50mm diameter.

9	21 CFR compliant Balnce		Please mention balance should be 21 CFR compliant	Understanding future requirement of data transfer and NABL accreditations.	The tender condition shall prevail.
10	Automatic, motorized glass draft shield		Please mention balance should have Automatic, motorized glass draft shield	This will help to avoid human errors which will affect the sensitivity of the micro- balance.	The tender condition shall prevail.
11	Balance Should Display		calibration overdue, leveling error and other such warnings.	This is help the end user to keep the micro balance in good health and avoid any wrong reportings.	The tender condition shall prevail.
12	Antistatic Solutions		Supplied with antistatic kit to remove static charge on filter paper, flask or tare container	Will help to take into consideration the antistatic charges generated during filter paper weighing.	The tender condition shall prevail.
13			Option to enter process parameters such as batch number, Sample Id etc on balance display.	for more systematic management of the data records.	The tender condition shall prevail.
			User management along with password should be available. All system related activity should be recorded	Will help to avoid any unauthorized access to the instrument.	The tender condition shall prevail.
<b>UV- Vis Spectrophotometer</b>					
1	Optics	Double beam, Czerny Turner monochromator (Grating should be 1200	No change desired		The tender condition shall prevail.

		lines/mm or better			
2	Source	Xenon flash lamp (80 Hz) with typical lifetime of 7-10 years	Also may include Halogen/D2 lamp	Open more option	The tender condition shall prevail.
3	Detector	2 silicon diode detectors for simultaneous sample beam and reference beam measurements	Ask for PMT Detector if Integrating Sphere to be used in future.	Silicon Detectors are good for normal Liquid sample analysis , however if there is serious plans for powder sample analysis with Integrating sphere in future as being asked for it is better to opt for PMT based high sensitive detector.	The tender condition shall prevail.
4	Measurable range	190-1100 nm	190-900nm if PMT is accepted	Perfect for Silicon Detector , however for PMT it should 190-900nm ( and this covers both the UV & Visible range which is up to 800nm)	The tender condition shall prevail.
5	Spectral bandwidth	Up to 2 nm	This is too low, Better to ask for Variable Band Width 0.5,1,2,4 nm or better	2nm band width is fixed and would not allow versatility of the instrument and control depending upon light throughput and sample matrices which vary in absorption of light.	The tender condition shall prevail. However, it may be noted that requirement is of upto 2nm not 2 nm.

6	Stray Light	$\leq 0.05\%T$ or better	May ask for 0.02% T at least. All good manufacturers have	0.05% is rudimentary value for good instruments.	The tender condition shall prevail.
7	Photometric Linear Range	4 Abs or better	No change desired		The tender condition shall prevail.
8	Wavelength Accuracy	$\pm 0.5$ nm or better	$\pm 0.3$ nm or better , All good manufacturers have	Standardise for good instruments	The tender condition shall prevail.
9	Wavelength reproducibility:	$\pm 0.1$ nm or better	No Change desired		The tender condition shall prevail.
10	Photometric Accuracy	$\pm 0.001$ Abs or better	$\pm 0.001$ Abs or better is only for a particular Abs such as 0.2/0.5/1.0,  instead ask for $\pm 0.3$ Abs Throughout Uv-Vis range)		The tender condition shall prevail.
11	Baseline Flatness	$\pm 0.001$ Abs or better throughout UV-Vis range	No change desired		The tender condition shall prevail.
12	Photometric Stability	$< 0.0004$ Abs or better			The tender condition shall prevail.
13	Photometric noise	$\leq 0.0001$ Abs or better	$\leq 0.0001$ Abs or better ( to specify RMS@500nm)	Unless RMS is specified the value has no meaning.	The tender condition shall prevail.
14	Local accessories	Branded PC, Display Screen, Printer and  UPS with 4 sets of quartz cuvette to be	No change desired		The tender condition shall prevail.

		<p>offered</p> <p>Local Accessories Specification: PC and printer: OEM factory supplied OR</p> <p>compatible i7 or better PC with 6GB, 500GB HDD, Flat screen monitor, optical mouse, pre loaded Windows and laser jet printer should be quoted along with system</p> <ul style="list-style-type: none"> <li>• Communication should be through USB</li> <li>• Suitable online UPS with at least 30 min backup</li> <li>• System should support up gradation to Pelletier assembly and integrating sphere for analysis of solid samples</li> </ul>	<p>(IF THE FOLLOWING UPGRADATION IS SERIOUSLY DESIRED THEN PLEASE MAY ASK FOR HIGH SENSITIVE PMT DETECTOR AND SPECTRAL RANGE OF 190-900nm)</p> <p>System should support up gradation to Pelletier assembly and integrating sphere for analysis of solid samples</p>		
		<ul style="list-style-type: none"> <li>• Warranty: 2 Years with additional AMC of two years</li> </ul>	<p>No change desired</p>		<p>The tender condition shall prevail.</p>

	<ul style="list-style-type: none"><li>• Built in hardware and software validation</li></ul> and reporting wavelength, wavelength repeatability, resolution, stray light, noise level etc. software should be GLP/GMP Compliance. IQ, OQ, PQ documentation. • Free onsite installation and training for support		
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**2) M/s KASLIWAL BROTHERS, RAIPUR**

Section V - Spectrophotometer					CECB's Response
S.No.	Specification	Requirement	Modification Request	Reason	
1	Source	Xenon flash lamp (80 Hz) with typical	We request you to keep the same specification	Life time of Xenon Flash Lamp is much higher (as you have mentioned typically 7 years) than D2 Tungsten Lamp. So, Recurring cost of using the instrument will be much lesser with Xenon Flash Lamp.	The tender condition shall prevail.
2	Spectral bandwidth	Up to 2 nm	Variable Spectral Bandwidth, 1 to 2 nm or better	Variable Band width will help you to get better result for small molecules as well as supra molecule. More than 2nm is not required as any molecule need to be analysed where large spectral bandwidth is required i.e more than 2nm then it is need to be studied in Integrating Sphere where slid width is upto 14.5nm. So we	The tender condition shall prevail. However, it may be noted that requirement is of upto 2nm not 2 nm.

				request you to make it just variable up to 2nm.	
3	Photometric Linear Range	4 Abs or better	3 Abs or better	3 Abs Photometric linear Range is sufficient for all the sample and it will generalize the specification	The tender condition shall prevail.
4	Detector	2 Silicon Photodiode	We request you to keep the same specification	Silicon Photodiode have much more quantum efficiency than the PMT Detectors. Moreover, Silicon Photodiode or any solid state detector is the latest technology over PMT and much faster and accurate in the detecting signal. Using PMT will cut your detecting range to 900nm hence comprising in future up gradation.	The tender condition shall prevail.
5	Photometric Accuracy	±0.001 Abs or better	We request you to change it to ±0.001 A	It generalize the Specification and this will not affect result	The tender condition shall prevail.

**Section VI - Digital Balance**

1	Weighing capacity	35 g	30 gm		Weighing Capacity – Minimum 30 gm
2	Weighing pan	approx. 62 x 62 mm Weight 170 g	Pan size of 50mm		Weighing Pan – Pan size should be of minimum 50mm diameter.

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**3) M/s THERMO FISHER SCIENTIFIC PVT. LTD., KOLKATA**

<b>Section V - Spectrophotometer</b>					<b>CECB's Response</b>
<b>S.No.</b>	<b>Specification</b>	<b>Requirement</b>	<b>Modification Request</b>	<b>Reason</b>	
1	Optics	Double beam, Czerny Turner Monochromator	True Double Beam with Reference and Sample Compartment, Czerny Monochromator	True Double Beam with both the compartment will help you to get more stable and reproducible result	The tender condition shall prevail.
2	Spectral bandwidth	Up to 2 nm	Variable Spectral Bandwidth, 1 to 2 nm or better	Variable Band width will help you to get better result for small molecules as well as supra molecule.	The tender condition shall prevail. However, it may be noted that requirement is of upto 2nm not 2 nm.
3	Photometric Linear Range	4 Abs or better	3 Abs or better	3 Abs Photometric linear Range is sufficient for all the sample and it will generalize the specification	The tender condition shall prevail.

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**6) M/s LCGC TRUCAL & SERVICES LLP, WEST BENGAL**

<b>Sr. No.</b>	<b>Points of Clarification</b>	<b>CECB’s Response</b>
<b>Section VI – Digital Balance</b>		
1	<p>Micro Balance with the capacity of 31 gm. Readability 1 µg &amp; pan size 50 mm dia.( as a special application for measuring 47 mm dia. Filter paper).            Additionally, this micro balance Data Base Management facility ( unlimited data can be stored ) , password through operation, compatibility for LIMS, LAN &amp; 21 CFR part 11 software, Ambient condition measurement ( display of Air pressure &amp; Humidity during measurement ), inbuilt interfaces such as RS232, USB, Ethernet Wifi, facility to generate Auto test report ( Repeatability Test Report) etc.            As accessories will supply Anti Vibration Table &amp; Anti-static Ionizer also.</p>	<p>Weighing Capacity – Minimum 30 gm            Weighing Pan – Pan size should be of minimum 50mm diameter.            Rest, the tender condition shall prevail.</p>