



कृषि विज्ञान केन्द्र, गुमला
(भारतीय कृषि अनुसंधान परिषद, नई दिल्ली)
विकास भारती बिशुनपुर, गुमला. 835231



KVK

KRISHI VIGYAN KENDRA, GUMLA

(Indian Council of Agricultural Research, New Delhi)

Vikas Bharti Bishunpur – 835231

Letter No.: KVK/G/25/257

Date :-12/09/20258

Invitation of sealed Quotation with financial and technical specification for establishment of Quality nucleus stock development centre, Centre for honey and other beehive products collection and Honey Testing Laboratory with other accessories.

Sealed Quotations are invited from reputed Manufacturers/firms/company/dealer for installation, delivery and establishment of Quality nucleus stock development centre, Centre for honey and other beehive products collection and Honey Testing Laboratory with other accessories at our KVK, Gumla campus. The technical specification of the unit are as given below:

Details component wise break-up of the sanction is as follows:

SN	Particulars	Phy (nos)	Remarks
1.	Quality nucleus stock development centre (For one unit)		
a	Bee quality nucleus (<i>Apis mellifera</i>) hives with bees	500	
b	Hive stand (iron)	500	
c	Bee feeder	500	
d	Queen excluder	400	
e	Bee veil	100	
f	Gloves	100	
g	Smokers	5	
h	Honey extractor (6 frame)	1	
i	Honey extractor (10 frame)	2	
j	Honey tray (ss)	2	
k	Honey strainer (ss)	2	
2.	Centre for honey and other beehive products collection, branding, marketing		
a	Consumables GMO square glass jars (250, 500, 1000 g)		
b	Stainless steel honey storage tank	10	
c	Racks/Almira for storage of honey	10	
d	Computer	2	
3	Testing Laboratory		
a	AAS with accessories (Specification in ANNEXURE-I)	1	
b	HPLC with UPS accessories (Specification in ANNEXURE-II)	1	
c	Digital balance	1	
d	Deep freezer	1	
e	Densitometer	1	
f	Polari meter	1	
g	Refractometer	1	

Krishi Vigyan Kendra, Gumla; Vikash Bharti Bishunpur; PIN- 835231 (Jharkhand)
Contact no.: Senior Scientist & Head – 9430955950/6393667463

Website: gumla.kvk4.in; e-mail: kvk.gumla@gmail.com, vikashbharti1983@gmail.com

[Signature]

किसानों की सेवा में समर्पित

SN	Particulars	Phy (nos)	Remarks
h	Tintometer	1	
i	Muffle furnace with accessories	1	
j	Hot air oven	1	
k	Centrifuge	1	
4.	Promotion of Plantation Bee Friendly plant		
a	Bee quality nucleus (<i>Apis cerana indica</i>) hives with bees	90	
b	Hive stand (iron)	90	
c	Bee feeder	90	
	Total		

Terms and conditions:

1. All the components with minimum 2year warranty.
2. Quotation should be made as per the specification without any variation
3. The last date of submission of quotation is **28th September 2025, 05:00 PM**
4. The quotation received either in incomplete form or after the due date will not be considered and treated as cancelled.
5. There is no advance provision and payment will be made after installation, delivery.
6. Execution of orders shall be carried out within 05 days of issue of purchase order
7. The bidder must have executed 5 projects of similar in nature for Govt. department/organization Proof of execution of such orders to be enclosed along with quotation.
8. Payment will be made only after successful after delivery, installation and commissioning
9. Quotations should reach following address before **28th September 2025, 05:00 PM** failing which the quotation will not accepted.
10. Interested firms may submit their quotations through email at: **kvk.gumla@gmail.com**
11. The organization holds exclusive rights to purchase the equipment mentioned above.


 (Secretary)
 Vikas Bharti Bishunpur
Secretary
 Vikas Bharti Bishunpur
 Gumla, Jharkhand, 835231

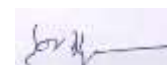
Krishi Vigyan Kendra Gumla Vikas Bharti Bishunpur

Invitation of sealed Quotation with financial and technical specification for installation, delivery, commissioning of Atomic Absorption Spectrophotometer (AAS) along with other accessories.

Sealed Quotations are invited from reputed Manufacturers/firms/company/dealer for installation, delivery, commissioning of Atomic Absorption Spectrophotometer (AAS) along with Hybrid Vapour Generator, Air Compressor at our KVK, Gumla campus. The preferred technical specification of the unit are as given below:

A. Absorption Spectrophotometer (AAS)

Sl. No.	Description of Component	Capacity/Qty Material
1	Type	Flame System
2	Light Source	4 Lamps Automatic Turret, Automatic Alignment
3.	Optical System	High Resolution 1800lines/mm grating, True Double Beam Optics
4.	Wavelength Range	180nm ~ 900nm
5.	Accuracy	$\leq 0.1\text{nm}$
6.	Repeatability	$\pm 0.02\text{nm}$
7.	Spectral Bandwidth	0.1,0.2nm,0.4nm,0.7nm,1.4nm,2.0nm(Automatic Switching and alignment)
8.	Baseline Stability	$\leq \pm 0.002\text{A}/30\text{min}$ (static), $\leq \pm 0.005\text{A}/30\text{min}$ (Dynamic)
9.	Absorbance Range	0 ~ 4 A
10.	Detector	Photomultiplier Tube (PMT)
11.	Background Correction	High Speed Self-reversal (BGC-SR) method: High Speed D2 lamp method (BGD-D2)
12.	Burner Head	Titanium alloy combustion head, 50&100mm
13.	Atomization Chamber	Polyphenylene Sulphide spray chamber
14.	Nebulizer	Adjustable nebulizer (Platinum capillary)
15.	Detection Limit	0.7 $\mu\text{g}/\text{ml}$
16.	Precision	RSD $\leq 0.5\%$
17.	Ignition Type	Microcomputer control, Automatic ignition
18.	Interface	Computer and USB interface communication



- | | |
|--------------------|---|
| 19. Software | PC communication software to control AAS, Data Processing and analysis. |
| 20. Sampler System | Auto |
| 21. Injection Pump | Double equipped with special cleaning pump |

B. Hybrid Vapour Generator

1. It should help to detect the low temperature elements such as Hg, As, Pb etc.
2. It should be highly automatic
3. Sensitivity $\leq 1\text{ng/ml/1\%A}$
4. Measurement Time 25-35 Seconds

C. Oil-Free Air Compressor

1. Air Flow 118 L/min
2. Speed 1400RPM
3. Max. Pressure 8 Bar
4. Restart Pressure < 5 Bar
5. Tank Capacity 24 Liter
6. Noise Level 52dB

D. Recirculating Water Chiller

1. Cooling Mode Compressor Cooling
2. Temperature Controller PID Controller
3. Temperature Range 5°C to 35°C
4. Cooling Capacity 1300W @ 25°C
5. Pump Pressure $\leq 1.3\text{Bar}$
6. Pump Flow ≤ 15 Liter/min
7. Tank Volume 8 Liter

E. Lamps for element analysis

1. 11 (Eleven Lamps) for Zn, Cu, Mn, Fe, Co, Cd, As, Pb, Ni, Hg, Mo and Cr

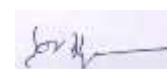
F. Desktop Computer

1. I3/I5 12th Generation CPU with 8GB RAM 21 inch LED display, Key Board, Mouse with original Windows 11 Operating System
2. 1 TB SSD with HDD

G. UPS

3KVA Online UPS with separate Battery Pack with 1hr power backup

H. 2(Two) 5 Star inverter Split AC



Terms and conditions:

1. All the components with minimum 2year warranty.
2. Quotation should be made as per the specification without any variation
3. The last date of submission of quotation is **28th September 2025, 05:00 PM**.
4. The quotation received either in incomplete form or after the due date will not be considered and treated as cancelled.
5. There is no advance provision and payment will be made after installation, delivery, commissioning of Atomic Absorption Spectrophotometer (AAS).
6. Execution of orders shall be carried out within **10 days** of issue of purchase order
7. The bidder must have executed 5 projects of similar in nature for Govt. department/organization Proof of execution of such orders to be enclosed along with quotation.
8. Payment will be made only after successful after installation, delivery, commissioning of Atomic Absorption Spectrophotometer (AAS)
9. After installation, all parameters of 10 samples has to be tested to verify the authenticity of the AAS.

Quotations should reach following address before **28th September 2025, 05:00 PM** failing which the quotation will not accepted.



(Secretary)
Vikas Bharti Bishunpur
Secretary
Vikas Bharti Bishunpur
Gumla, Jharkhand, 835231

Krishi Vigyan Kendra Gumla Vikas Bharti Bishunpur

Invitation of sealed Quotation with financial and technical specification for **Ultra-High Performance Liquid Chromatograph (UHPLC) with Auto Sampler and Accessories**

Sealed Quotations are invited from reputed Manufacturers/firms/company/dealer for installation, delivery and establishment of **Ultra-High Performance Liquid Chromatograph (UHPLC) with Auto Sampler and Accessories** at our KVK, Gumla campus. The preferred technical specification of the unit are as given below:

Details component wise break-up of the sanction is as follows:

Sl. No.	Description	Qty.
1.	System Base Vanquish™ Core UHPLC system	01
2.	Thermo Scientific™ Vanquish™ Quaternary Gradient Pump with Online Four Channels Degasser unit. <ul style="list-style-type: none"> Operating Principle: Serial dual-piston pump Flow Range (settable): 0.001–10 mL/min, in 1 µL/min increments Pressure Range: 2– 70 MPa (20 – 700 bar, 290 – 10,100 psi). Compressibility Compensation: Fully automated, independent of mobile phase composition Flow Accuracy: ±0.1% Flow Precision: <0.05% RSD or <0.01 min SD, whichever is greater Pulsation: Typically, <1.0% or <0.2 MPa, whichever is greater Gradient Formation: Low-pressure gradient proportioning Proportioning Accuracy: ±0.5% of full-scale Proportioning Precision: <0.15% SD Number of Solvent Lines: 4 Mixer Volume: 400µL (50µL proprietary capillary mixer and 350µL static mixer, default configuration) Dwell Volume (contribution of the pump to the system gradient delay volume): 679µL (default configuration) Solvent Degassing: Built-in, 4 channels Wetted Parts: Stainless steel, titanium, ceramics, sapphire, PEEK, UHMW PE (only Pump C), carbon-fibre filled PTFE (only Pump CN), fluoropolymers Biocompatible: No; pH range 1–13, chloride concentration up to 0.1mol/L Safety Features: Leak detection and safe leak handling, excess pressure monitoring PC Connection: USB 2.0 3-port-HUB to connect further Vanquish modules I/O Interfaces: 2× 6 pin Mini-DIN connectors each having functionality: 1 input, 1 relay out, 1 bidirectional input/output GLP: GLP Predictive Performance functions for scheduling maintenance procedures based on the actual operating and usage conditions of the pump. All system parameters logged in the Chromeleon CDS Data System Audit Trail. Environmental Conditions: 5–35°C; 20–80% RH (non-condensing) max. 2000m above sea-level, Storage: -20–45°C max. 60% RH (non- condensing) Power Requirements: 100–240 V AC, 50/60 Hz, max. 245 W/255 VA 	01
3.	POWER CORD INDIA-VERSION /SA SW, 1.8M	08
4.	Thermo Scientific™ Vanquish™ – Split Auto Sampler with 216 nos. vial capacity. <ul style="list-style-type: none"> Operating principle: Split loop injection Pressure range: 2–70MPa, (20–700 bar, 290–10,100 psi) Injection volume range: Default: 0.01–100µL, min. step = 0.01µL; Optional: 0.01–250µL, up to 1000µL with Multi-draw option, min. step 0.025µL Injection volume accuracy: Typically, ±0.5% at 50µL and ±1% at 10µL water Injection volume precision: <0.25% area RSD for 3µL Injection linearity: r >0.99999 (caffeine in water) Injection cycle time: Down to 8 s depending on separation conditions Min. sample required: 2µL at 1µL injection volume Carry over (UV): <0.002% with caffeine Needle wash: 1 solvent per injection unit, dip rinse and continuous rinse Sample temperature accuracy: -2 °C/+4 °C Sample temperature stability: ±1°C Dwell volume (contribution of the autosampler to the system gradient delay volume): 255µL with 100µL sample loop (default configuration); 124µL with sample loop of 10µL Method Transfer capability: Sampler freely tunable contribution to system gradient delay volume between 0 to 230µL Sample capacity: Any four of the following (SBS footprint) <ul style="list-style-type: none"> 54 × 12 mm OD vials (≤1.5 mL) 96 × 6, 7 and 8mm OD vials (≤1.2 mL) 16 × 15 mm OD vials (≤4 mL) 9 × 22.5 mm OD vials (≤10 mL) 	01

Sl. No.	Description	Qty.
	<ul style="list-style-type: none"> Well plates (96 and 384, deep and shallow) + capacity of 12 × 22.5 mm OD vials (≤10 mL) in the carousel Automation features barcode reading: Empty segment detection; Rack/well plate verification; Inventory management Liquid handling programming: Yes GLP: Predictive performance functions for scheduling maintenance procedures based on the actual operating and usage conditions of the sampler. All system parameters logged in the Thermo Scientific™ Chromeleon™ Chromatography Data System (CDS) audit trail. PC connection: USB 2.0; 3-port-HUB to connect further Vanquish modules I/O interface: 2 × 6 pin Mini-DIN connectors each having functionality: 1 input, 1 relay out Safety features: Leak detection and safe leak handling Wetted parts: Sample flow path: SST, Titanium, Ceramics, DLC, PEEK, PE-UHMW Eluent flow path: SST, Titanium, Sapphire, PEEK, PE-UHMW, Ceramics, DLC Wash liquid flow path: Silicone, PP, PE, FFKM, PEEK, PA, PK, TPE Biocompatible: No; pH range 1–13, chloride concentration up to 0.1mol/L Environmental conditions: Operation: 5–35°C, 20–80% RH (non- condensing), max. 2000 m above sea-level Storage: -20–45°C, max. 60% RH (non-condensing) Power requirements: 100 – 240 V AC, ± 10%; 50/60 Hz; max. 525 W / 550 VA Dimensions (h x w x d): 290 × 420 × 620 mm (11.4 × 16.5 × 24.4 in.) <p>Weight: 24 kg (52.9 lbs.)</p>	
5	2ML CLR 9MM VIALS WITH CAPS FOR AUTOSAMPLER (100/Pk)	01
6.	Thermo Scientific™ Vanquish™ – Column Compartment C <ul style="list-style-type: none"> Operating principle: Still air and forced air Temperature range: 5–85°C in 0.1°C increments (max 18°C below ambient) Temperature stability: ±0.05 °C Temperature accuracy: ±0.5 °C (up to 80 °C) Heating performance: from 20°C to 50°C (±1°C) in <15 min from 25°C to 40°C (±1°C) in 5 min: Cooling performance from 50 to 20°C (±1°C) in <15 min Capacity: 2 column slots Column slot dimension: 387 mm x 25 mm Temperature zones: 1 per device (up to 3 zones in stacked configuration) Column capacity: 2 x max. 300 mm w/ pre-heater or guard column, max. column i.d.: 10 mm Column ID: Up to 4 column ID tags Valves: Up to 2 valves: 2-position/6-port, 6-position/7-port Pre-heater: Yes, active (optional) and passive Post-column cooler: No Pressure range: 2 - 70 MPa (20–700 bar, 290 - 10100 psi) Wetted parts: Titanium, Ceramics, SST Biocompatible: No; pH range 1–13, chloride concentration up to 0.1mol/L Safety features: 2 doors, fluid leak sensors, fast-cool button PC connection: USB 2.0 GLP: GLP Predictive Performance functions for scheduling maintenance procedures based on the actual operating and usage conditions of the pump. All system parameters logged in the Chromeleon CDS Data System Audit Trail. Environmental conditions: Operation: 5–35°C, 20–80% RH (non- condensing), max. 2000 m above sea-level Storage: -20–45°C, max. 60% RH (non-condensing) Power requirements: 100–240 V AC, 50/60 Hz, max. 310 W / 330 VA Dimensions (h x w x d): 700 mm x 111 mm x 422 mm (27.6 in. x 4.4 in. x 16.6 in.) <p>Weight: 14 kg (30.9 lbs)</p>	01
7.	PRE-COLUMN HEATER 11UL,ID 0.25MM,TCC3X00	01
8.	COLUMN HOLDER KIT, VH-C	01
9.	VIPER ADAPTER, 2 PCS	01
10.	COLUMN-ID TAG, 2 PCS, VH-C	01
11.	Thermo Scientific™ Vanquish™ Variable Wavelength Detector <ul style="list-style-type: none"> Optical design: UV/VIS/NIR photometer (tunable Czerny-Turner monochromator) with additional internal reference beam Light source: Deuterium lamp; Tungsten lamp (optional) Wavelength range: 190–750 nm (with deuterium and tungsten lamp) Spectral bandwidth: 6nm at 254nm Wavelength accuracy: ±1 nm Wavelength repeatability: ±0.1 nm Wavelength calibration: Internal calibration with D-alpha line of the deuterium lamp Wavelength validation: Internal validation with holmium oxide glass filter Number of signal channels: Up to 2 Data collection rate (single channel): Up to 125 Hz Data collection rate (multi-channel): Up to 5 Hz Noise (single channel): <±2.5 µAU at 254 nm <p>Noise (multi-channel): <±10µAU (typical <±7µAU) at 254nm and</p>	01

Sl. No.	Description	Qty.
	280nm <ul style="list-style-type: none"> Drift: <0.1 mAU/h at 254 nm Linearity: <5% at 2.5 AU (typical <3% at 2.5 AU) Flow cells: 5 options, see ordering information for details Flow cell pressure limit: Standard biocompatible and semi-micro biocompatible flow cell: 5 MPa (50 bar, 720 psi); Semi-preparative biocompatible flow cell: 10 MPa (100 bar, 1450 psi); Standard and semi-micro flow cell: 12 MPa (120 bar, 1740 psi) Wetted parts: Standard and semi-micro flow cell: Fused Silica, PEEK, PTFE, SST, Standard biocompatible, semi-micro biocompatible and semi-preparative biocompatible Fused Silica, PEEK Safety features: Power-up diagnostics of optics, cooling fans, motors, and electronics Leak detection and safe leak handling. PC connection: USB 2.0; 3-port HUB to connect further Vanquish modules I/O interfaces: 2 × 6 pin Mini-DIN connectors each having functionality: 1 input, 1 relay out GLP: Predictive performance functions for scheduling maintenance procedures based on the actual operating and usage conditions of the detector: lamp age and ignitions, lamp intensity degradation, leak detection, service monitoring period. All system parameters logged in the Chromeleon CDS Audit Trail. 	
12.	FLOW CELL STD, 11UL, VF/C-D4	01
13.	VIS-LAMP, VF/C-D4, U3DAD/MWD/VWD	01
14.	VIPER CAP., IDXL 0.13X650MM,SST	01
15.	Thermo Scientific™ Vanquish™ – Refractive Index Detector <ul style="list-style-type: none"> Measuring method: Deflection type Polarity: Positive and negative Refractive index range: 1.00–1.75 RIU Measuring range: ± 600 µRIU Response time (RT): 0.05 s, 0.10 s, 0.25 s, 0.50 s, 1.0 s, 1.5 s, 2.0 s, 3.0 s, 6.0 s Data collection rate (DCR): Up to 50 Hz Noise: ≤2.5 nRIU Drift: ≤0.2 µRIU/hour Linearity range: <5.0% RSD at 600 µRIU Temperature control: 30–55 °C Flow cell type: 2 chambers Flow cell volume: 8 µL Internal volume: Inlet port/flow cell: approx. 50 µL, flow cell/outlet port: approx. 480 µL Maximum flow rate: 10 mL/min (with water) Fluidics pressure limit: 0.05 MPa (0.5 bar, 7 psi) Autozero: Optical and electrical Autozero resolution: ≤1 nRIU at 8 mV/µRIU, 4 nRIU at 2 mV/µRIU Offset range: 0–500 mV Integrator output (sensitivity): 0–1 V DC (2 mV/µRIU, 8 mV/µRIU) PC connection: USB 2.0 I/O interfaces: Analog I/O System interlink: 2 system interlink connectors (RJ45-8 connectors) Safety features: Leak detection and safe leak handling Control: Chromeleon CDS 7.2 SR5, Chromeleon CDS 7.2.10 or later; Keypad with 2 buttons GLP features: All system parameters are logged in the Chromeleon Audit Trail Biocompatible: No Normal phase compatible: Yes, without hardware modifications 	01
	<ul style="list-style-type: none"> pH: 1–13 Buffer concentration: ≤1 mol/L Chloride concentration: ≤0.1 mol/L Wetted parts: Stainless steel, PTFE, quartz glass	
16.	VIPER CAP., IDXL 0.18X950MM,SST	01
17.	THERMO INSTRUMENT CHROMELEON HPLC S/W	01
18.	CM LICENSE CODE: NEW CHROMELEON HPLC S/W	01
19.	HYPERSIL GOLD C18 5UM 150X4.6MM COLUMN	01
20.	HYPERREZ XP GOLD 8UM 4X250MM Carbohydrates Columns	01
21.	VIPER ADAPTER, 2 PCS.	01
22.	Desktop Branded Computer with Printer as per tender specification	01
23.	Branded 3KVA true online UPS with 30 minutes battery backup	01
24.	Manpower/ AMC	01


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