

**Assistant Store Officer (Purchase), Purchase Cell, O/o Comptroller**  
**GURU ANGAD DEV VETERINARY AND ANIMAL SCIENCES UNIVERSITY**  
**Ferozepur Road, Ludhiana- 141004 – Punjab (India)**  
 Email : officepurchasecell@gmail.com, Phone 0161-2553353

### DETAILED NOTICE INVITING e-TENDER (DNIT)

Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana invites e-tenders through the website <https://eproc.punjab.gov.in> under two bid systems from eligible and qualified bidders (Manufacturer/Sole Selling Agent/Distributor/Authorized Dealer/Supplier) for the supply of **Common Laboratory Equipments for different types for various Departments at COVS, Rampura Phul** as per the required specification with full terms & conditions.

It is mentioned that this purchase shall be finalized item wise i.e. order will be placed to the L1 of each item separately. The bidder(s) can quote for any number of items, and keeping in view the EMD mentioned against each items, they will have to deposit EMD accordingly. In case of partial bidding, the bidder(s) will have to select the EMD exemption option at the time of depositing EMD and upload the document showing the details of items quoted and EMD Deposited.

#### Details of required item(s):-

Sr No	Name of required item(s)	Quantity	Name of indenting department/ place of delivery /installation of item(s)
1.	<b>Purchase of Common Laboratory Equipments of different types for various Departments of COVS, Rampura Phul</b> Complete as per required specifications with accessories (If any)	<b>As per details given below</b>	Dean, College of Veterinary Science, Guru Angad Dev Veterinary & Animal Sciences University, Rampura Phul, Bathinda

#### CRITICAL DATE SHEET

<b>eTender Reference No.</b>	PC/2021-22/714
<b>eTender ID No.</b>	2021_DAH_71613_1
<b>Last Date &amp; time for submission of online Bid</b> <i>NOTE: If the bidders using Net Banking Service of banks other than SBI are advised to must deposit online Fees in advance at least (3) three working days prior to the last date of submission of the Bid.</i>	<b>05-10-2021 upto 02.00 pm</b>
<b>Date &amp; time for opening of technical Bid</b> <i>NOTE: If sufficient bids are not received within stipulated time, tender may be extended/ re-tendered or opened with new date &amp; time as per the recommendations of sub purchase committee.</i>	<b>06-10-2021 at 02.10 pm</b>
<b>Contact person for required item(s) related any enquiry</b>	Dr. Atul Prakash, M- 99976-12314, Email Id- dratul2510@gmail.com and Dr. Sandeep Kaswan, M- 75891-44457, Email Id- deepu02vet@gmail.com, covsrampura@gmail.com

<b><u>DETAILS OF FEES</u></b>		
<b>SrNo.</b>	<b>Details</b>	<b>Amount (Rs)</b>
1	<b>Tender Fees (Non-refundable)</b>	<b>4,400/-</b>
2	<b>Earnest Money Deposit (EMD)(Refundable)</b> The EMD will be returned to the unsuccessful bidders automatically by the State Public Portal i.e. <a href="http://eproc.punjab.gov.in">http://eproc.punjab.gov.in</a> .  <b>NOTE:</b> The bidder is required to deposit the EMD equivalent to the total amount mentioned against each item(s) for which the bid is to be submitted; otherwise the bid will not be considered. <b>In case of partial bidding, the bidder(s) will have to select the EMD exemption option at the time of depositing EMD and upload the document showing the details of items quoted and EMD Deposited.</b> <b>Example:</b> <ol style="list-style-type: none"> <li>1. If the bidder is submitting bid for all 32 items, the firm must deposit Rs. 1,74,000/- as EMD.</li> <li>2. Suppose, If the bidder is submitting bid for first 3 items (Sr No.1, 2 &amp; 3) only, the firm must deposit Rs. 4,000/- (Rs. 2,000/- + Rs. 1,000/- + Rs. 1,000/-) as EMD.</li> <li>3. Suppose, If the bidder is submitting bid for 3 items (Sr No.8, 16 &amp; 24) only, the firm must deposit Rs. 12,000/- (Rs. 1,000/- + Rs. 1,000/- + Rs. 10,000/-) as EMD.</li> <li>4. Suppose, If the bidder is submitting bid for item at Sr. No. 20 only the firm must deposit Rs. 8,000/- as EMD.</li> </ol>	<b>Rs 1,74,000/-</b> <b>OR</b> <b>As per NOTE</b>
3	<b>Total Processing Fee including GST @ 18% (in INR)</b>	<b>2,360/-</b>

**Important Note:-**

**1. The e-Tender of Guru Angad Dev Veterinary & Animal Sciences University, Ludhiana appeared/listed on website <https://eproc.punjab.gov.in> under Organisation "Department of Animal Husbandry" and Division "Purchase Cell". For details logon to [www.eproc.punjab.gov.in](http://www.eproc.punjab.gov.in) and [http://gadvasu.in/tender\\_notice](http://gadvasu.in/tender_notice). Any corrigendum(s) will be published on above websites only.**

**2. The interested bidders are advised to submit/upload their bids/documents well in advance before closing date/time to avoid any problem at the later stage.**

**3. The bidders using Net Banking Service of banks other than SBI are advised to submit their EMD and other fees (if any) in advance at least (3) three working days prior to the last date of submission of the Bid.**

**4. At the time of Technical Evaluation of Technical Bids, the sub purchase committee may ask all/any bidder(s) to submit the hard copy of any document or any additional documents or show presentation/demo of product or any query (If required) for verification/approval of Technical bids.**

**5. Financial Bids will be opened only of those tenderers, who qualify and are found suitable during the processing of Evaluation of Technical Bids. Financial Bids will be opened immediately after receiving Technical Evaluation report from the concerned sub purchase committee.**

## Detailed Tentative quantity and EMD Amount of the required item(s):-

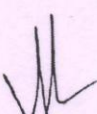
Revised approved (as per sanction) List of Common laboratory equipments for various departments at COVS, Rampura Phul


Name of the article	Qty.	Remarks, if any (Desirable Brands)	EMD (Rs.)
1. Monopan electronic balance (0.1 g to 300 g)	4	AND, Sartorius, Mettler or higher	2000
2. Monopan electronic balance (0.01 g to 110 g)	2	AND, Sartorius, Mettler or higher	1000
3. Monopan electronic balance (1mg to 100 g)	1	AND, Sartorius, Mettler or higher	1000
4. Monopan electronic balance (0.1 mg to 250 g)	2	AND, Sartorius, Mettler or higher	3000
5. pH meter (digital)	5	Cole-parmer, Eutech, Thermo-Fischer, Systronics or higher	2000
6. pH meter (digital) with RTD probe	1	Elico, Systronics, Orion or higher	1000
7. Vortex shaker	5	Tarsons, Genaxy, Thermo or higher	1000
8. Incubator (Size-95 Liters)	1	NSW, Mac, Genaxy or higher	1000
9. Autoclave (Size-55 Liters)	2	Mac, NSW, Genaxy or higher	4000
10. Autoclave (Size-80 Liters)	5	Mac, NSW, Genaxy or higher	12000
11. Autoclave (Size-100 Liters, Automatic)	2	Equitron, Thermo, Nuve or higher	11000
12. Hot air oven (Size-95 Liters)	2	Mac, NSW, Genaxy or higher	2000
13. Hot air oven (Size-125 Liters)	5	Mac, NSW, Genaxy or higher	6000
14. Centrifuge (17000 rpm, Non-refrigerated, bench top, 50, 15 & 1.5 ml rotors)	4	Thermo, Eppendorf, Sigma, Remi, Genaxy, Sorvall or higher	8000
15. Refrigerated Centrifuge (-20°C)	1	Thermo, Eppendorf, Sigma or higher	10000
16. Hot Water Bath (18 Liters)	2	Mac, NSW, Genaxy or higher	1000
17. Hot Water Bath (18 Liters, with circulating pump)	2	Mac, NSW, Genaxy or higher	2000
18. Deep Freezer (Horizontal, 500-560 Liters with stabilizer)	2	Celfrost, Blue Star, Eilanpro or higher	2000
19. Deep Freezer (Vertical, 340 Liters with stabilizer)	3	Remi, Thermo, Eppendorf or higher	7000
20. BOD Incubator (Size-112 Liters)	3	NSW, Remi, Equitron or higher	8000
21. BOD Incubator (Size-370 Liters)	2	Remi, Equitron, Genaxy or higher	7000
22. Laminar flow (Vertical)-900x600x600 mm, SS body, HEPA filter	3	Acco, NSW, Equitron or higher	7000
23. Spectrophotometer	2	Agilent Technologies, Shimadzu, Biorad or higher	30000
24. Refrigerator (Double door, 350-400 liters)	11	Samsung, LG, Haier or higher	10000
25. Micropipettes (0.5-10 µL)	2	Thermo, Eppendorf, Tarsons or higher	1000
26. Micropipette (2-20 µL)	1	Thermo, Eppendorf, Tarsons or higher	1000
27. Micropipettes (10-100 µL)	2	Thermo, Eppendorf, Tarsons or higher	1000
28. Micropipettes (20-200 µL)	2	Thermo, Eppendorf, Tarsons or higher	1000

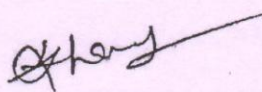


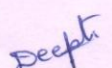
**Revised approved (as per sanction) List of Common laboratory equipments for various departments at COVS, Rampura Phul**


29. Micropipettes (100-1000 $\mu$ L)	3	Thermo, Eppendorf, Tarsons or higher	1000
30. Micropipettes (multichannel)	1	Thermo, Eppendorf, Cole-parmer or higher	6000
a) 10-100 $\mu$ L (8 channel)	1		
b) 10-100 $\mu$ L (12 channel)	1		
c) 30-300 $\mu$ L (8 channel)	1		
d) 30-300 $\mu$ L (12 channel)			
31. Upright deep Freezer (Ultra-Low Temperature, -80°C)	1	Haier, Thermo scientific, Eppendorf or higher	14000
32. CO <sub>2</sub> Incubator	1	Thermo scientific, Eppendorf, Esco Technologies or higher	10000
		Total	1,74,000/-

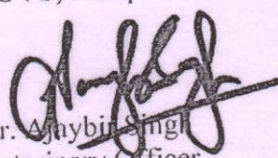
  
Dr. Atul Prakash  
Assoc. Professor  
COVS, Rampura Phul


  
Dr. Sandeep Kaswan  
Asst. Professor  
COVS, Rampura Phul

  
Dr. Amit Sharma  
Assoc. Professor  
COVS, Rampura Phul

  
Dr. Deepti Narang  
Prof.-cum-HOD. Vet. Microbiology  
COVS, Ludhiana

  
Dr. S.P.S. Saini  
Prof. Vety. Pharmacology &  
Toxicology  
COVS, Ludhiana

  
Dr. Ajaybir Singh  
Veterinary Officer  
VP & RRTC Kaljharani

  
Mr. Satinder Pal Singh  
Store Keeper  
COVS, Rampura Phul

  
Dean  
COVS, Rampura Phul

## Detailed specifications of the required item(s):-

### Annexure-I

#### Detailed Specification of Common Instruments at Different Departments of College of Veterinary Science, Rampura Phul, Bathinda

##### 1) Monopan Electronic Balance (Sr. No. 1-4)

Features of weighing balances:

- LCD backlight display
- Linear calibration
- Selectable weighing units (mg and g preferably with additional ct, oz and lb units if available)
- Internal calibration (quick calibration)
- Plastic case wind protection with easy cleaning, stainless steel weighing plate on metal support
- Tare function
- External adapter with 220-240VAC 100mA
- Response time < 3 secs

##### 2) pH meter (Digital) (Sr. No. 5-6)

For research with a comprehensive range of features and functions, making it suitable for general laboratory, QC and GLP based applications

Consisting of Tri-combination pH/ATC electrode with an electrode holder/arm with smooth movement and protection cover

Working pH range: 0 – 14 pH

pH resolution:  $\pm 0.01$  pH

Mv:

- Range 0 -  $\pm 1999$
- Accuracy  $\pm 1$  mV
- Resolution 1 mV

Temperature Compensation

- 0 to 100 ° C with ATC
- Resolution 0.1°C
- Accuracy  $\pm 0.5^\circ\text{C}$
- With RTD probe

Calibration Points

- Should have 3 stage calibration with auto buffer recognition
- NIST traceable buffer set 500 ml each (pH 4.0, 7.0 & 9.0).
- Calibration reminder

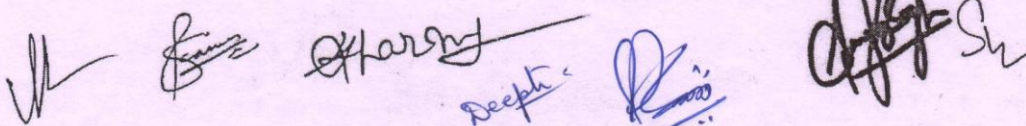
Display

- Backlit blue LCD with operation icon
- Digital display with 0.001 pH unit readability

##### 3) Vortex Shaker (Sr. No. 7)

General purpose laboratory vortex shaker for 50, 15 and 2 ml centrifuge tubes

Mixing speed is adjustable up to 3,500 rpm (Max)





Operating Modes Touch or Continuous  
 Metal base plate and rubber feet  
 Speed Range 2800 to 3400rpm (60 Hz) 2850rpm (50 Hz)  
 Operating Temperature Range +4°C to 65°C  
 Dimensions (w x d x h) 14 x 16 x 12 cm  
 Light weight (maximum up to 2.5 kg)  
 Electrical 120V, 60Hz, 0.6A 230V, 50Hz, 0.3A  
 Pulse mode function Programmable

#### 4) Incubator (90-110 Ltrs) (Sr. No. 8)

##### Features

- Double walled construction with complete inner chamber made of Corrosion resistant stainless steel (AISI 430)
- Outer chamber should be of steel sheet finished with powder coated paint Insulation to maintain desired temperature
- Inner glass door
- Inner chamber should be fabricated with ribs for adjusting shelves to convenient height and shelves to be supplied
- Shelves should be made of polished stainless-steel sheet as per chamber

**Capacity:** 90-110 litres

##### Temperature range:

- Temperature should be thermostatically controlled
- Temperature should be thermostatically controlled with indicators from few degree °C above ambient temperature to 80 °C with accuracy of  $\pm 0.5$  °C
- Over-Temperature Cut-Off with audio/ visual alarm
- Low Temperature Warning alarm

##### Unit:

- Air ventilators to be provided on both side
- The equipment should be providing with microprocessor controlled digital display
- Temperature homogeneity between top and bottom shelves should be maintained by forced circulation

#### 5) Autoclave (55-60 L, 80-90 L) (Sr. No. 9-10)

A vertical steam sterilizer to provide safe, economical and effective sterilization for laboratories that do not want to compromise on quality, safety and reliability and need to sterilize Liquids such as nutrient media and buffer solutions, Solid items such as pipettes, tubes and filters and Glassware and plastic articles.

##### Chamber

Vertical loading type chamber with service basket and **complying to the strictest international directives and standards** equipped with

- Steam collection bottles to remove most of the steam during operation
- Ware inlet and outlet valve
- Drain valve for cleaning or changing with fresh water
- Constructed with appropriate stainless steel with superior corrosion resistance to water and steam
- High temperature and pressure resistant silicon gasket
- Built-in analog pressure gauge
- Manual pressure release valve
- Wheels/casters for easy transport

*[Handwritten signatures: V, S, Aharay, Deepthi, and others]*



**Chamber size/Capacity: (55-60 L, 80-90 L)**

**Gauges:**

- Should have a water level gauge
- Analog gauges for measuring inner and outer steam pressure.
- Should have an inner temperature indicator

**Display**

- LED display for temperature and remaining time (Preferred)

**Operating Temperature and accuracy**

- Maximum 123°C
- Temperature Accuracy:  $\pm 0.5^{\circ}\text{C}$  at  $121^{\circ}\text{C}$
- Must have Temperature calibration

**Operating pressure and gauge**

- 15 -20 psi
- ANALOG PRESSURE GAUGE (0 -400 psi pressure gauge) indicating actual pressure

**Timer**

Automatic START/STOP timer

Safety warnings and alarms

**6) Autoclave (80-100 L) Fully Automatic (Sr. No. 11)**

A vertical steam sterilizer to provide safe, economical and effective sterilization for laboratories that do not want to compromise on quality, safety and reliability and need to sterilize Liquids such as nutrient media and buffer solutions, Solid items such as pipettes, tubes and filters and Glassware and plastic articles.

**Chamber**

Vertical loading type chamber with service basket and **complying to the strictest international directives and standards** equipped with

- Steam collection bottles to remove most of the steam during operation
- Ware inlet and outlet valve
- Drain valve for cleaning or changing with fresh water
- Constructed with appropriate stainless steel with superior corrosion resistance to water and steam (SS-304)
- High temperature and pressure resistant silicon gasket
- Built-in analog pressure gauge
- Manual pressure release valve
- Wheels/casters for easy transport

**Chamber size/Capacity: (80-100 L)**

**Gauges:**

- Should have a water level gauge
- Analog gauges for measuring inner and outer steam pressure.
- Should have an inner temperature indicator

**Display**

- LED display for temperature and remaining time (Preferred)

**Operating Temperature and accuracy**

- Maximum 123°C
- Temperature Accuracy:  $\pm 0.5^{\circ}\text{C}$  at  $121^{\circ}\text{C}$
- Must have Temperature calibration

**Operating pressure and gauge**

- 15 -20 psi

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- ANALOG PRESSURE GAUGE (0 -400 psi pressure gauge) indicating actual pressure

#### **Timer**

Automatic START/STOP timer  
Safety warnings and alarms

**PID Controller** (Fully automatic): features of Auto purging, Exhaust, Auto cycle stop, alarm at cycle over

#### **7) Hot air Oven (90-100 L, 110-125 L) (Sr. No. 12-13)**

For drying glassware and to provide an optimal, homogeneous, temperature uniformity and stability to ensure drying is complete

#### **Material of construction**

- Should have double walled construction, with high quality insulated steel. Inner walls of 304 qualities SS, Outer walls of Epoxy Powder coated GI sheets.
- Facility for adjustable shelves, 3-4 removable shelves to be provided.
- With internal lighting facility, Insulated door fitted with heavy hinges, mechanical door lock

**Capacity:** (90-100 L, 110-125 L)

#### **Temperature range**

- Temperature should be thermostatically controlled
- It should be Ambient +5°C to 250°C with temperature setting accuracy  $\pm 0.5$  °C with forced air circulation for temperature uniformity
- Separate PT 100 sensor and display for temperature (LED)
- Safety alarms
- Air ventilators to be provided on both side
- The equipment should be provided with microprocessor controlled digital display
- Temperature homogeneity between top and bottom shelves should be maintained by forced circulation

#### **Calibration**

Certificate from an ISO for three temperature points

#### **Power supply**

All electrical peripherals required for smooth functioning e.g. voltage stabilizers should be provided.

#### **8) Centrifuge (Non-Refrigerated/Benchtop): 17000 rpm (Sr. No. 14)**

Fixed angle rotor

Rotor Heads for: 50 ml Centrifuge tubes (6 well), 15 ml centrifuge tubes (12 Well) and 1.5/2 ml Centrifuge tubes (24 well)

Max RPM: 17000

Benchtop

CE Certified

#### **Supplier/ Manufacturer**

Must be ISO certified for quality

#### **9) Refrigerated Centrifuge (Benchtop) (Sr. No. 15)**

- Table top compact refrigerated centrifuge with CFC free refrigerant.
- Should have min. capacity of around 24 x 1.5/2.0 ml.



- Should have max. speed of 17,000 rpm or more with RCF of 30,000 g or more.
- Should have ability to spin for a time of 1 sec - min : 59 sec, short and continuous run.
- Max Timer Range: 9h + continuous
- Should provide Temperature control from -10°C or lower to +40°C
- Microprocessor Control System with Pre- Cooling System
- Should have international standards such as IEC 61010 or the CE conformity and also preferably certified with MED CERT (DIN EN ISO 13485:2003) and GLC & (ISO 9001)
- Direct access key with naming option and password protection should be available for protocols
- Centrifuging chamber should be made of stainless steel.
- Should have quick and easy operation with the knob.
- The rotors should be changed easily.
- Should be able to store at least 10 programs.
- Should be equipped with a pre-cooling function (Fast Cool) and stand-by cooling.
- Should have auto lid locking and holding function.
- Should have Emergency lid lock release function.
- Should provide Lid dropping protection and Certified Click Seal biocontainment lids
- Auto-Lock, Push Button rotor system for opening or locking the rotor and for the easy replacement of the rotor with assured locking
- Should have Automatic rotor recognition function.
- Should have Imbalance switch-off function.
- Should provide Motor and chamber overheating protection.
- Stainless steel centrifuge bowl
- Extraordinarily silent (<60 dB(A))
- Installation list for more than 50 institute inside/outside India (preferable)

#### **Rotor Specifications**

- 1) Fixed Angle rotor 24 x 1.5/2.0 ml, incl. hermetic aluminium lid , Max RCF 21,000g or more
- 2) Fixed Angle rotor 6 x 50 ml falcon vial, incl. hermetic aluminium lid , Max RCF 9000g or more

#### **10) Hot Water Bath (18 L) (Sr. No. 16-17)**

Corrosion free Double walled inside of stainless steel (SS-304)

Outer body of mild steel and coated with epoxy powder

Wool insulation

Microprocessor controlled digital display-indicator for temperature from few degrees above the ambient to 100 °C ± 0.5 °C .

Heating element of copper (Preferred)

Perforated shelves

Stainless steel cover, drain plug

#### **11) Deep Freezer (Horizontal) (Sr. No. 18)**

Horizontal Type

Temperature: -20 °C

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Storage volume: 500-560 Liters  
With compatible stabilizer of reputed brand  
Method of Defrosting: Forst free  
Material of chamber interior: Stainless steel  
Material of chamber exterior: Stainless steel  
Door Material: Stainless steel  
Cooling Coil Material: Copper  
Warranty: 1 year or more

**12) Deep Freezer (Vertical, 340 Liters) (Sr. No. 19)**

Vertical Type  
Internal volume: 340 Liters  
Temperature:  $-20^{\circ}\text{C}$   
Display: LED  
Body: inner chamber of Stainless steel with outer body powder coated SS/GI  
Temperature range:  $-16^{\circ}\text{C}$  to  $-24^{\circ}\text{C}$   
With compatible stabilizer of reputed brand  
Warranty: 1 year or more

**13) BOD Incubator (100-120 L & 340-380 L) (Sr. No. 20-21)**

For incubation of organisms, such as on agar plates, and also for conditioning of heat sensitive media and to provide an optimal, homogeneous, temperature uniformity and stability to ensure that protocols are fully reproducible

**Material of construction**

- Double walled construction with complete inner chamber made of Corrosion resistant stainless steel (AISI 430)
- Outer chamber should be of steel sheet finished with powder coated point Insulation to maintain desired temperature
- Inner glass door
- Inner chamber should be fabricated with ribs for adjusting shelves to convenient height and shelves to be supplied
- Shelves should be made of polished stainless steel sheet as per chamber

**Capacity:** 100-120 liters & 340-380 litres

**Temperature range:**

- Temperature should be thermostatically controlled
- Temperature should be thermostatically controlled with range  $5^{\circ}\text{C}$  to  $50^{\circ}\text{C}$  with accuracy of  $\pm 0.5^{\circ}\text{C}$
- Over-Temperature Cut-Off with audio/ visual alarm
- Low Temperature Warning alarm

**Unit:**

- Air ventilators to be provided on both side
- The equipment should be provide with microprocessor controlled digital display
- Temperature homogeneity between top and bottom shelves should be maintained by forced circulation

**14) Laminar air Flow (Vertical) (3x2x2 Feet) (Sr. No. 22)**

The LAMINAR AIRFLOW UV Chamber when switched on, the blower unit should create a suction pressure through the primary filter (or Pre-filter), which

*[Handwritten signatures and initials]*



removes dust particles of above 10-micron size in the first stage. Subsequently, the filtered air passed to the HEPA filters, where the particles or substances of 0.3-micron size and above are removed. Finally, the ultra-clean filtered air supplied to the working chamber as a uniform airflow to perform precision analysis activities.

The system should have

- Laminar Air Flow Cabinet should have fully enclosed bench designed.
- The Laminar flow bench should have Stainless Steel SS 304 table with MS coated tabular frame and body.
- CLASS 100 (ISO 5 for particle sizes  $0.5 \mu < 3530$  particles/M<sup>3</sup> of air at both at Rest & Operation Condition

The unit should have

- Should have LCD display to show measured parameters like stage velocity, total using time, UV/FL lamp on/off etc
- Unit should have Differential pressure indicator

#### Working area

3 x 2 x 2 feet (LxDxH)

#### Work Table

- It should have IS 304 Grade Stainless Steel with finish 4 polish surface Front door
- 5 mm thick clear Acrylic Sheet - Vertical sliding

**Floor standing base stand for cabinet:** Have leveling feet

Direction of flow: Vertical flow

**Airflow speed:** Filter face Velocity should have 90 Feet/Minute  $\pm 20$  (0.45 m/s)

#### HEPA Filters

**Type:** Separator less type, Mini-Pleats HEPA Media

**Media:** Ultra clean glass fiber paper

**Retention:** 0.3 Micron

**Efficiency:** 99.997% or better

**Initial Pressure:** 16 mm WG

**Grade:** H13 rating

#### Pre Filters

**Media:** Synthetic, non-woven polyester

**Casing:** Epoxy painted GI frame

**Retention:** 10 Micron & above

**Efficiency:** 90%

**Initial Pressure:** 6 mm WG

**Grade:** F7 rating

**Particle Retention:** 0.3 Micron

**Noise level:** < 60 dBA $\pm 5$

#### Power Supply:

Power supply should have 220-230 V, 50 Hz

**Illumination:** Externally mounted illuminating lamp with separate switch to illuminate the work area

**UV lamp:** Pre-mounted UV lamp (30 W) with separate switch with UV light hours run indicator

### 15) Spectrophotometer (UV-VIS-Double Beam) (Sr. No. 23)

#### Specification

*[Handwritten signatures and initials are present below the specification section, including "VH", "James", "Hans", "Reepthi", "Ramp", and "Anshul Sin"]*



UV-Vis The system should be capable to measure the all colorimetric based parameters in food and water samples as per FSSAI requirements including Enzyme assays, Kinetic assays and scans

A fully automated spectrophotometer with double beam optics with pre-programmed applications using conventional quartz / glass/plastic cuvettes with all the required accessories.

Capable to store method with analysis: > 100 method programs on the instrument or PC, > 1000 results with data, evaluation results and used parameters

#### Optical Design

- Double Beam with sample and reference cuvette positions; Czerny-Turner Monochromatic/Holographic grating with sealed optics
- Reference Compartment Should accommodate cells up to 10 mm path length as standard feature

#### Light Source

- Halogen lamp for Visible range
- Deuterium Lamp for UV range, light source should be auto automatically selected as per wavelength required

**Detector:** Silicon Photodiode dual detector/PMT

**Scan Ordinate Modes:** Absorbance, % Transmittance

**Resolution:** 0.1nm or better.

**Wavelength Range:** 190 –1100 nm

**Wavelength Accuracy:**  $\pm 0.3\text{nm}$  or better for entire range

**Wavelength Repeatability:**  $\pm 0.1\text{nm}$  or better

**Stray Light:** Less than 0.02% at 220 nm (NaI) Less than 0.02% at 340 nm (NaNO<sub>2</sub>)

Wavelength scanning speed: up to 8,000 nm/min or better for fast kinetic studies

Photometric range: up to 4 Abs or better

Photometric accuracy:  $\pm 0.0015$  Abs at 0.5 Abs or better

#### Application Software

Compatible Software should be user friendly & simple for data handling with feature like easy to use report publisher, online help and answer wizard, GLP & audit trail and fully compatible with Windows.

System built in features such as real time display of concentration, time scan, photometric mode, single/multi-wavelength, capability for event recording (e.g., addition of reagents)

Software should have built in

#### Methods:

- Absorbance with one or more wavelengths,
- Scans, Nucleic acids, Proteins, OD 600,
- Evaluation: via factor, standard and calibration curve
- Dual wavelength with subtraction and division evaluation

#### Method dependent evaluation:

- Absorbance, concentration via factor and standard
- Concentration via standard series using Linear regression, Nonlinear regression with 2nd and 3rd degree polynomials
- Spline analysis,
- Linear interpolation (point to point evaluation)



- Absorbance allocation via subtraction and division
- Ratio 260/280, 260/230, Molar concentration and total yield for nucleic acids.

#### Accessories and spares

- One pair each of 0.5, 1- and 3-ml quartz cuvettes 10 mm path length
- Cuvette holder

#### Computer and printer

Latest configuration factory set branded PC system (i7, 8GB RAM, Windows 10) with 22-23" Full HD Monitor with Multifunction printer –B/W – duplex-laser-legal,A4 - 1200dpi-up to 21 ppm –capacity with network card  
UPS: Suitable UPS with 60 mins backup power

#### 16) Refrigerator (Sr. No. 24)

- Type: Double door
- Capacity: 350-400 liters
- Defrost System: frost free
- Energy Efficiency: 3 star rating or more
- Material: stainless steel with metallic finish
- 10 years compressor warranty

#### 17) Micropipette variable volume single channel (Sr. No. 25-29)

- Single hand locking lever
- Precise and accurate pipetting
- Smooth plunger force
- Lightweight
- Durable design
- Fully Autoclavable
- Warranty: 3 years or above

#### 18) Micropipette variable volume multi-channel (Sr. No. 30)

- A complete seal on every channel
- Maintain precise sample volumes
- Spring-loaded tip cone
- Secondary calibration option
- Improved volume display
- Fully autoclavable
- Warranty: 3 years or above

#### 19) Upright deep Freezer (Ultra-Low Temperature) (Sr. No. 31)

Specifications for -80 °C ULT Freezer

- Vertical/Upright ultra-freezer
- Temperature: -50 to -86 °C, even at ambient temperature  $\geq 32^{\circ}\text{C}$
- Capacity: approx. Minimum 400 liters
- Doors: Exterior and interior door, four adjustable inner shelves with individual doors.

*[Handwritten signatures and initials]*



- Interior door low temperature safe seal to prevent temperature loss when opening the outer door.
- Latch able inner door to minimize cold air loss when external door is opened and reduce power consumption to maintain temperature.
- Keyed locks on the outer doors and lids keep out unauthorized users
- Password to prevents unauthorized users from changing the temperature set point or alarm set point.
- System with microprocessor control and monitoring system
- Digital display of temperature, Audible and visual alarm
- Interior: Stainless steel, corrosion free.
- Alarm formonitoring freezer conditions like power failure, high or low temperature, probe failure, door open, clean gasket, low battery, hot condenser and clean filter is necessary.
- Optional Co2 and Ln2 Backup
- Function modes : Select run, set temperature, set high alarm, set low alarm, calibrate or optional back up mode
- Non CFC/HCFC refrigerant with biodegradable oil compressor preferable
- Facility to check highor low voltage fluctuation to maintain stable power.
- Defrost model
- Noise level:42-50dB preferable
- Tamper resistant controller to prohibit accidental set point alteration of temperature below or above the freezers operating range
- Insulation: Type: Non-CFC, foamed-in-place polyurethane.
- System with lower Kilowatts usage per 24 Hours will be preferred.
- Programmed startup
- System should be CE marked, ISO 9001 certified or other acceptable international agency certified.
- Installation list for more than 50 institute inside/outside India
- Should be complete with all accessories and dealing firm should provide written assurance for availability of spares for 10 years from the date of installation.
- Minimum two years warranty for manufacturing defects and five years warranty on compressors.
- Suitable 5KVa servo stabilizer should be supplied along with the equipment (preferable)

#### 20) CO<sub>2</sub>Incubator (Sr. No. 32)

##### Specifications

- Capacity: minimum 150 Ltrs
- Auto-sterilization: >90°C moist heat automated decontamination routine
- Easy to use control panel and large digital display for CO<sub>2</sub>, humidity, and temperature
- Accurate Temperature Control with (Microprocessor)direct heat technology and high efficiency heaters on all sides of the culture chamber
- CO<sub>2</sub> Measuring System and CO<sub>2</sub> sensor is positioned directly in the culture chamber to insure precise control
- Should have appropriate Air filtration with HEPA filters preferred
- Panless Humidity System- An integral humidity water reservoir to maintain accurate humidity

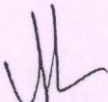
*[Handwritten signatures and initials at the bottom of the page]*




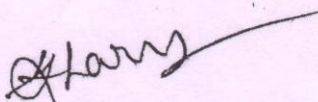
- Water level alarm to refill water
- Easy to check temperature and CO<sub>2</sub> concentration at the same time
- The stainless steel/ copper culture chamber of high quality. No plastic
- All corners and edges are coved
- Temperature Control Range: 3°C above ambient - 55°C
- Temperature Setting Deviation: plus or minus 0.1°C
- Temperature Spatial Deviation: plus or minus 0.5°C
- CO<sub>2</sub> Control: CO<sub>2</sub> Concentration Measure/Control Range 0 - 20% Control Accuracy :  $\pm 0.1^\circ\text{C}$
- Fast recovery time for temperature (<10minutes), CO<sub>2</sub> (<5) and humidity (15minutes) should be available
- It should be with CO<sub>2</sub> Sensor :TCD (thermal conductivity detector)
- It should be complete with Co<sub>2</sub> Cylinder filled with gas, double stage regulator with stainless steel diaphragm & compatible stabilizer
- Validation certificate for decontamination from any accredited agency
- Documentation of international certification should be provided
- Compliance certificate should be provided
- Suitable 5KVa servo stabilizer should be supplied along with the equipment
- Should be complete with all accessories and dealing firm should provide written assurance for availability of spares for 10 years from the date of installation.
- Minimum two years warranty for manufacturing defects
- Installation list for more than 50 institutes inside/outside India (preferable)

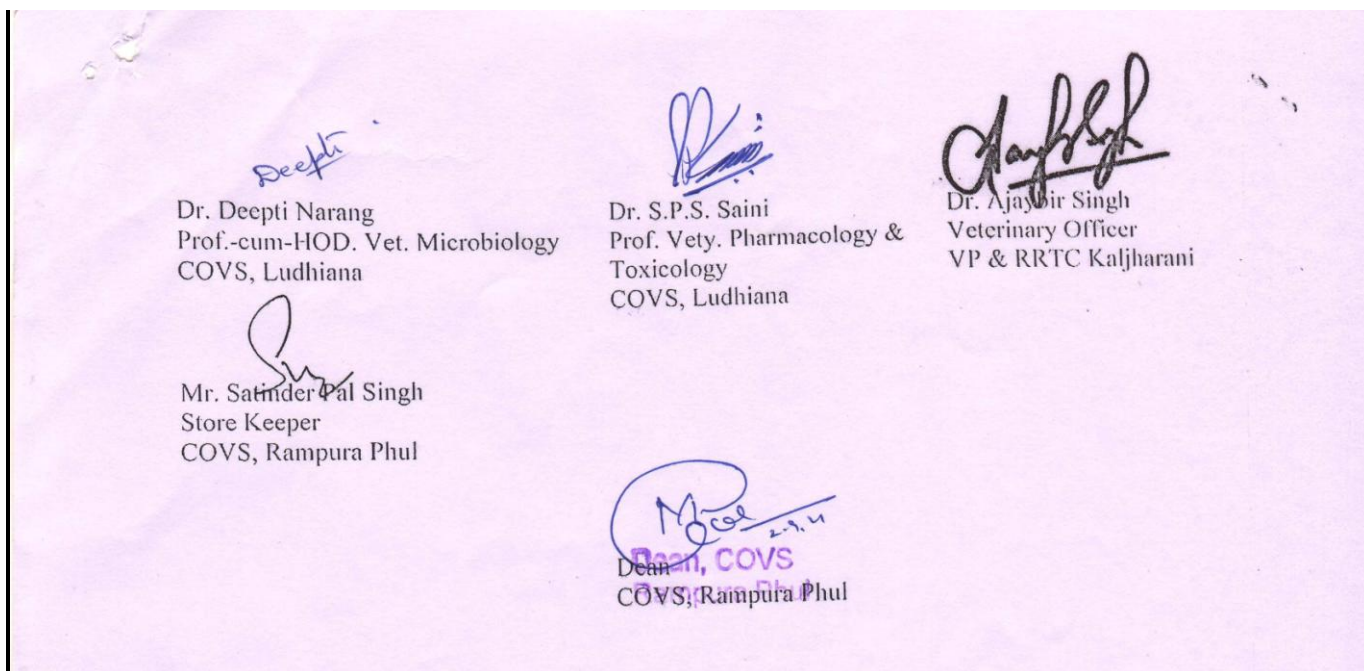
### Terms and Conditions

- Rates will be inclusive of delivery charges i.e. FOR.
- Installation will be made by the firm.
- Commissioning will be inclusive in the rates.
- Payment will be released after satisfactory installation and demonstration of the equipment.
- Supply should be made within 4 weeks of issue of the supply order.
- Additional AMC/ warranty of minimum 2 years on no extra cost will be preferred.
- Affidavit/Certificate, certifying that the bidder is not supplying the quoted item(s) to any other Govt. / Pvt. Organizations /Institutions / Hospitals at the rate lower than the rate quoted against this tender
- Quality Assurance Certificate as per technical specification will be provided.
- Original Technical Catalogue of the quoted model will be provided.
- The bidder/manufacturer of the equipment offered should be in the business of the supply and installation of same/ similar equipment for the last three calendar years.
- Bids of a firm/company that has been blacklisted/ debarred by GADVASU or any other State / Central Government's organization shall not be entertained.
- Installation list for more than 50 institutes inside/outside India may be provided.
- Installation report of instruments of last five years at different institutes inside and outside India should be provided.

  
Dr. Atul Prakash  
Assoc. Professor  
COVS, Rampura Phul

  
Dr. Sandeep Kaswan  
Asst. Professor  
COVS, Rampura Phul

  
Dr. Amit Sharma  
Assoc. Professor  
COVS, Rampura Phul



### **Guidelines for submission of TECHNICAL BID:**

#### **The Technical Bids should contain detail information on the following: -**

- 1) Full Name of the Bidder Firm along with complete address. 2) Bankers Name & Address. 3) GST No.
- 4) PAN/TAN No. 5) Experience in line. 6) Validity of Offer. 7) Lead time/Delivery Period. 8) Payment condition.
- 9) Write-ups, Guaranty/Warranty, AMC details etc. 10) Quality Assurance/Monitoring system followed- Certificates where needed should be attached.

#### **The firms are also required to upload copies of the following documents in a single file of .pdf format with Technical Bid:-**

- a) Scanned copy of dully filled Check List.
- b) Scanned copy of Full details of Item(s), sub systems and additional items/accessories to be quoted (i.e. Full name, Model number, Name of Accessories, Manufacture Details, Literatures/brochures/write-ups, Guaranty/Warranty, AMC details etc.) as mentioned in the technical bid.
- c) Scanned copies of Brochure/leaflets/catalogues for equipments should be submitted in the technical bid.
- d) Scanned copy of all document(s) mentioned in the above detailed specification of the required items (if any).
- e) Scanned copy of the Authorization dealer/distributor/stockist certificate issued by Manufacturer.
- f) In case of imported equipment, scanned copy of Manufacturers Authorization Certificate issued by Principal Manufacturer duly verified by the Indian Agent.
- g) Scanned copy of Tender Acceptance letter & Undertaking (Annexure-I).
- h) Scanned copy of firm's Registration, PAN Card, GSTIN.
- i) Scanned copy of Income Tax Statement for the last year.

### **Guidelines for submission of FINANCIAL BID:**

- (a) The rates should be quoted as per the BOQ uploaded on the SPP Portal. Taxes, if any, should be indicated separately. **Please mention the amount of GST under column no. 9 duly calculated as per total quantity required as per column no. 4 for each item.** The bidders are advised to download this BOQ.xls as it is and quote their offer/rates in the permitted column and upload the same in the Financial Bid. The Bidder shall not tamper/modify downloaded price bid template in any manner. In case if the same is found to be tampered/modified in any manner, tender will be rejected and EMD would be forfeited and tenderer is liable to be banned from doing business with GADVASU.
- (b) The bidders are advised to quote price for equipment in INR.



(C) **The University is entitled for Discounted GST @ 5% on items which are covered under Notification No 47/2017-Integrated Tax (Rate) Dt 14<sup>th</sup> Nov, 2017, Notification No. 45/2017-Central Tax (Rate) Dt 14<sup>th</sup> Nov, 2017 and Amendment no. 10/2018- Integrated Tax (Rate) Dt 25<sup>th</sup> Jan, 2018 and University shall provide Declaration for GST Benefit.** Therefore all charges including GST according to above circulars and any other levies payable by University should be clearly indicated otherwise it would be presumed that the rates quoted are inclusive of all these charges and will not be paid. **Please mention the amount of GST under column no. 9 duly calculated as per total quantity required as per column no. 4 for each item in BOQ uploaded on the SPP Portal.**

(d) The payment will be made after deducting TDS as per GST/Govt. Rules.

### **Guidelines for bidders for Registration and Submission of bids:-**

1. For participating in the above e-tender, the contractors shall have to get themselves registered with <http://eproc.punjab.gov.in>. and get user ID & password. Bidders who have not registered with e procurement portal need to get registered by paying the requisite registration fee for e-tender participation and obtain Class 3 Digital Signature Certificate (DSC) which are mandatory to participate in the e-tendering process.
2. Bidders should enroll/register in the e-procurement module of State Public Procurement Portal (SPP Portal) through the website: URL:<http://eproc.punjab.gov.in> for participating in the bidding process. Useful information for Registration of first time bidder and instructions for submitting the online bids on the SPP Portal is available at URL:<http://www.eproc.punjab.gov.in> through its link "Bidder Manual Kit" (<https://eproc.punjab.gov.in/nicgep/app?page=BiddersManualKit&service=page>).
3. Tender Documents can be downloaded from the State Public Procurement Portal URL:<http://eproc.punjab.gov.in>.
4. Any change/corrigendum/extension of opening date in respect of this tender shall be issued through websites [www.gadvasu.in](http://www.gadvasu.in) and [www.eproc.punjab.gov.in](http://www.eproc.punjab.gov.in) only and no press notification will be issued in this regard. Bidders are therefore requested to regularly visit these websites for updates. Bidder should also take into account all corrigendum(s) published before submitting the bids online.
5. The bidders are required to submit their bids online on the SPP Portal, using valid Digital Signature Certificates. Bids received only on SPP Portal will be considered, however bids sent through sealed cover/email/post/fax, etc. will be rejected.
6. The BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for that tender.
7. *The units registered with National Small Industries Corporation (NSIC) or the concerned Ministry or Department shall be exempted from the payment of Bid Security (Earnest Money Deposit) as defined under General Financial Rules, 2017. In such case, copy of the certificate showing registration with the above mentioned institutions to be uploaded in Cover-I of the e-tender in PDF format.* The date and time fixed for closing of bids will remain unchanged, even if it is declared as a holiday by the Government. GADVASU will not be responsible for any delay in enrolment/registration as bidder or submitting /uploading the offer on e-tender portal. Hence, bidders are advised to register in e-tendering website URL:<http://eproc.punjab.gov.in> and obtain their Digital Signature Certificate and upload their bids/documents well in advance.
8. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority or the relevant contact person indicated in the tender.
9. For any clarification/difficulty regarding e-tendering Process please contact on helpdesk at Punjab State e Governance Society, Plot No. D-241, Industrial Area, Phase 8, Sector 74, Mohali, Phone No. 0172-2970263 & 0172-2970284. E-mail: [eproc@punjab.gov.in](mailto:eproc@punjab.gov.in) and [niceproc.punjab@gmail.com](mailto:niceproc.punjab@gmail.com)

### **10. Intimation Regarding Payment of Online Fees :**

1. The bidders using Net Banking Service of banks other than SBI are advised to submit their EMD and other fees (if any) in advance at least (3) three working days prior to the last date of submission of the Bid.

2. The bidders are hereby informed not to close/suspend their Bank Accounts, from which the EMD/Tender Fee/Processing Fee is being paid for respective Tender. In case of any refund issue relating to the respective tender, the Department would not be liable or responsible in anyway.

**11. Intimation Regarding Payment through NEFT / RTGS Mode** The bidders are hereby informed that settlement of NEFT / RTGS transaction does not take place on Sundays, 2nd and 4th Saturdays of a Month, and Declared Bank Holidays.

### **General Terms & Conditions / Instructions for bidders:-**

1. The interested, bona fide and reputed dealers/distributors/stockists/manufacturers or Indian agents (on behalf of their foreign principals) may submit online bids for each of the required item(s) along with all requisite documents, Tender Fee, Processing Fee and EMD.
2. EMD(s) for different required item(s) as indicated in respective cell(s) under the EMD column of the above table should be submitted separately for each item(s).
3. Tender shall be accepted only from Manufacturer/Sole Selling Agent/Distributor/Authorized Dealer.



4. The units registered with National Small Industries Corporation (NSIC) or the concerned Ministry or Department shall be exempted from the payment of Bid Security (Earnest Money Deposit) as defined under General Financial Rules, 2017. In such case, copy of the certificate showing registration with the above mentioned institutions to be uploaded in Cover-I of the e-tender in PDF format.
5. The EMD will be returned to the unsuccessful bidders automatically by the State Public Portal i.e. <http://eproc.punjab.gov.in>.
6. The EMD will be forfeited if the bidder fails to accept the order based on his/her offer/bid or fails to supply the items.
7. The supplier will have to complete the supply of materials within due time from receiving of purchase order. The liquidated charges @1% per week shall be imposed if supply is made after expiry of delivery period subject to maximum 10% of the total value of the order. After 10 weeks order shall stand cancelled. However competent authority of the University has reserves to right to accept the material even after stipulated period without any liquidated charges.
8. The quoted equipment shall be in compliance with the required specifications mentioned in tender and shall be of the latest technology, best quality and high standards. Any optional accessories/ tooling, besides the standard equipment recommended for the better performance of the equipment, if offered, be provided with their full technical details including their use and advantage in a separate sheet with the tender documents. No extra payment shall be paid on account of any discrepancy in nomenclature of items.
9. The item should be delivered F.O.R. at GADVASU/Research Stations/KVKs/Colleges etc. as mentioned in Tender document and the supplier shall be responsible for any damage during the transit of goods. The FOR price should be inclusive of all incidental charges i.e. freight, forwarding, insurance, etc.
10. The clearing charges from custom house will be borne by the Indian Agent of supplier.
11. All miscellaneous charges on foreign transactions make Form 15A and its subsequent charges on verification by Chartered Accountant would be borne by the bidder.
12. The documents will be provided to the Indian Agent on request by GADVASU.
13. Tenderer shall take into account all costs including installation, commissioning, cartage, etc. for giving delivery of material at site before quoting the rates. In this regard no claim for any extra payment for any reason shall be entertained.
14. The payment will be made after deducting TDS as per GST/Govt. Rules as applicable.
15. Our Institute is registered with DSIR and is exempted from Excise Duty & Custom Duty. Hence, CDEC/DSIR will be provided to the firm, if demanded. Rates should be quoted accordingly.
16. The quantity can be increased/decreased as per the actual requirement.
17. The supplier should give an undertaking that they will be responsible to carry out the preventive maintenance and to repair the equipment during guarantee and post guarantee period.
18. Full details of after sale service offered during the post guarantee period should be furnished along with tender specified.
19. Information of actual users of the equipment in India supported with evidences and performances should be furnished alongwith tender.
20. If required the working of the equipment must be demonstrated in any place to be specified by the supplier.
21. The supplier shall train to the satisfaction of the purchaser one or two technicians at site/factory for operating, servicing and undertaking minor repairs without extra cost.
22. The bidder is required to furnish the non-blacklisting certificate as per Annexure – II.
23. While submitting the tender, if any of the prescribed conditions are not fulfilled or are incomplete in any form, the tender is liable to be rejected. If any tender estipulate any condition of his own, such conditional tender is liable to be rejected.
24. GADVASU reserves the right to accept/reject any or all the tenders in part/full without assigning any reason thereof.
25. All disputes shall be subject to Ludhiana jurisdiction only.

Place: Ludhiana

Sd/-  
Assistant Store Officer (Purchase)  
Purchase Cell



## Checklist

Sr.No.	Details	
1.	Name and Complete Address of the Firm	
2.	Email Id and Contact number of the bidder	
3.	Permanent Account Number (PAN) No. of the Firm	
4.	Bank details of the Firm: Bank Name, Branch Address, Account Number., Type of Account (Current/Savings), MICR Number , RTGS/NEFT Code etc.	
5.	Details of Quoted item(s) i.e. Name, Make, Model Number etc.	
6.	Mention amount in Rs. of EMD deposited online and name of item(s) to be bided (Calculate the amount of EMD from the list mentioned in the DNIT - DETAILED NOTICE INVITING e-TENDER). NOTE: The bidder is required to deposit the EMD equivalent to the total amount mentioned against the item(s) for which the bid is to be submitted; otherwise the bid will not be considered. In case of partial bidding the bidder is required to select the EMD exemption option at the time of depositing EMD.)	Rs _____
7.	Attached scanned copy of Full Details of item(s), Sub systems and additional items/accessories to be quoted (i.e. Full name, Model number, Name of accessories, Manufacture details, Literatures/Brochures/Write-ups, Guarantee/ Warranty, AMC details etc.) as mentioned in the technical bid. <b>(Write YES OR NO)</b>	
8.	Attached scanned copy of the Authorization dealer/distributor/stockist certificate issued by manufacturer <b>(Write YES OR NO)</b>	
9.	In case of imported equipment, Attached scanned copy of Manufacturers Authorization certificate issued by Principal Manufacturer duly verified by the Indian Agent. <b>(Write YES OR NO)</b>	
10.	Attached scanned copies of all other document(s)/ certificate(s) mentioned/required in the DNIT. <b>(Write YES OR NO)</b>	
11.	Attached scanned copy of Tender Acceptance letter & Undertaking (Annexure-I). <b>(Write YES OR NO)</b>	
12.	Attached scanned of firm's Registration, PAN Card, GSTIN. <b>(Write YES OR NO)</b>	
13.	Attached scanned copy of Income Tax Statement for the last year. <b>(Write YES OR NO)</b>	
14.	Whether the accessories (if any) are included in price of equipment item(s) quoted by you? <b>(Write YES OR NO)</b>	

Date:

Place:

**Signature of the Bidder  
with Official Seal**

Name -----

Designation-----



## TENDER ACCEPTANCE LETTER & UNDERTAKING

(To be given on firm letter head)

Date:

To,

Assistant Store Officer (P),  
Purchase Cell O/o Comptroller  
Guru Angad Dev Veterinary and Animal Sciences University  
Ludhiana

Tender Reference No: \_\_\_\_\_

Name of the tender/work:- \_\_\_\_\_

Sir,

1. I/we have downloaded the tender documents for the above mentioned Tender/Work from the website(s) **www.eproc.punjab.gov.in** as per your advertisement.
2. I/we hereby certify that I/we have read the entire terms and conditions of the tender documents from Page **First** to **Last** (including all documents like Annexure(s), schedules(s), etc.,) of **DETAILED NOTICE INVITING e-TENDER** which form part of the contract agreement and I/we shall hereby abide the terms/conditions/clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/organization has also been taken into consideration, while submitting this acceptance letter.
4. I/we hereby unconditionally accept the tender terms and conditions of above mentioned tender document (s)/corrigendum(s) in its totality /entirety.
5. I/we certify that the items/products quoted by our firm comply all required Technical Specifications as mentioned in the DNIT (Detailed Notice Inviting Tender) under 'Detailed Specifications of the required items'.
6. I/we hereby certify that all miscellaneous charges on foreign transactions, make Form 15A and its subsequent charges on verification by Chartered Accountant would be borne by our firm /dealer/distributor.
7. I/we hereby certify that our company/Firm and Manufacturer/Principal Firm have not been **blacklisted/debarred** by any Govt. Department/Public Sector Undertaking/ Research Institution/Statutory body/University in India during the last **Five** years.
8. I/we certify that all information furnished by our Firm is true and correct and in the event the information is found to be incorrect/untrue, then your department/organization shall without giving any notice or reason thereof or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours faithfully

Date:

Place:

**Signature of the Bidder  
with Official Seal**

Name -----

Designation-----