

**E-TENDER NOTICE NO. 1/2020-21/PLDB
PUNJAB LIVESTOCK DEVELOPMENT BOARD
LIVESTOCK COMPLEX, SECTOR-68, S.A.S. NAGAR-160062**

The Punjab Livestock Development Board O/o Director Animal Husbandry, Punjab, Livestock Complex, Sector-68, S.A.S. Nagar-160062(Punjab) invites E- tender on Double bid system for following items as per terms and conditions detailed below:-

Sr. No	Name of Item	Quantity	Sr.No	Name of Item	Quantity
1	IVF Workstation	01	8	Programmable Embryo Freezer	01
2	Portable ultrasound with probe and ova pick up assembly	01	9	Dry Bath	03
3	Benchtop incubator for IVF work with accessories	01	10	Bead Bath	02
4	Refrigerated Benchtop Centrifuge	01	11	Double Distillation (Quartz) Plant	01
5	Table top CO2 incubator with accessories	01	12	Heat Stage	02
6	Stereo-Zoom Microscope	02	13	Milk Testing Equipment	01
7	Phase Contrast Microscope	01	14	Smart Weighing Scale	75

1. The E-tenders should be submitted online till 15/07/2020 upto 5:00 pm and the same will be opened on 16/07/2020 at 11:00 am. For other term and conditions, please visit website <http://eproc.punjab.gov.in>.
2. E- Tender details can also be obtained from the Departmental website www.husbandrypunjab.org.
3. Corrigendum, if any will be upload on above websites only.

Additional Chief Executive Officer

FAX No: 0172-2217084
Telephone No. 0172- 2217083
Email ID: dahpunjab@gmail.com

Tendering Procedure.

It will be a two stage tendering. The technical tenders and financial/commercial tenders financial/commercial tenders will have to be submitted AS PER E -TENDERING PROCEDURE TENDERING PROCEDURE.

The Technical Bids should contained detail information on the following: -

- Nature of Ownership.
- Composition of the Firm.
- Bankers Name & Address.
- GST No.
- PAN/TAN No.
- Tax clearance.
- Whether Manufacturer/Sole Selling Agent/Distributor/Authorized Dealer.
- Experience in line. - Capability/Capacity to service the requirement.
- Details of relevant infrastructure.
- Arrangements of after sale service.
- List of Clients.
- Quality Assurance/Monitoring system followed.

Certificates where needed should be attached duly attested.

Financial/Commercial Bids.

Financial Bid should contain the price quoted per unit. The following information should be clearly given in the Financial Bid:-

- Price per Unit.
- Place of Delivery.
- Status of Taxation/Duties, GST etc.
- Lead time/Delivery Period.
- Packing & forwarding.
- Mode of Transportation.
- Payment condition.
- Warranty/Guarantee.
- Validity of Offer.
- Acceptance of Terms of N.I.T.
- Details of Earnest money attached.

Financial Bids will be opened only of those tenderers, who qualify and are found suitable during the processing of Technical Bids.

SPECIFICATIONS

Sr no-1 ; Item – IVF / Assisted Reproduction Technology Work station (01)

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

Technical specifications:

Size	Aprox. 4 feet
Work Area Dimensions	Aprox height 28-30” and Depth of 19-20”
Multi Zone Heating System	Integrated, independent heating zones with their own heating and sensor system with 3-5 independent sensors. Accuracy \leq 0.2 degree C Uniformity \leq 0.2 degree C 1 Set Point for all independent heating zones Temperature modes are required to put on/off different set of heating zones. Surveillance system is required to provide real time zone information of temperature, flow rate etc for different zones.
Noise and vibration levels	Equipment offering minimum levels will be preferred; however it should not be more than 52d BA.
Laminar Air Velocity	Average of 0.21 m/s or 41fpm \pm 20%
Pre filter	85% arrestance or better
Filter Efficiency	>99.999% for particle size 0.1-0.3 micron per IEST-RP-CC001.3/ H14
Microscope	Position for fixing one microscope and associated provisioning for its integration etc
Transmitted light source	LED one set
PT 1000 Ports	3-5 ports

Cabinet construction	Main body – minimum 18 gauge electro-galvanized steel with white oven baked epoxy-polyester, antimicrobial powder coated finish Work zone- minimum 16gauge stainless steel SS-304 Side walls & Sash – tempered laminated safety glass
Heated Glass stage	Microscope light opening with heated glass minimum 90mm. Required to have dedicated system for temperature control and recovery in this zone.
ISO Class	3 or less

Others :-

- VOC /Carbon Filter and UV light are required.
- Touch screen full functional windows PC with minimum 15” display having USB ports/HDMI/DVI ports or any other required for connecting to the microscope camera must be mounted inside the work zone. The system should observe and record culture behaviour in real time. It should provide real time information on zone performance.
- Suitable number of electric ports for all instruments including microscope and monitor for 220-230 v/50-60HZ.
- The engineering drawing and air flow diagram/ drawing are required to be submitted.

Successful bidder will complete installation for the full functioning of the equipment at PLDB'S IVF Lab at Patiala at no extra cost.

Full Functional Demonstration of the offered equipment is required.

Firm can quote and submit technical papers of more than one model/make of standard equipment under this item.

All the accessories/ components/consumables etc required to effectively operate the equipment for its intended use will be considered as part of Standard equipment and must be inclusive in the bid quote /document.

The standard equipment along with all the components should be warranted for two years followed by no cost AMC for 2 years with a condition of 2 visits per year. Onsite

installation and training is mandatory. Supplier / OEM should have service centre in India with factory trained personnel.

Only latest updated models available on date should be quoted. Firm should provide user list of at least 5 National/ International Labs having used same make/ model for bovine OPU work along with satisfactory function report from at least 3 users.

Equipment should have all the relevant certifications CE, IEC, ISO etc supporting documents must be supplied along with tender.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided. Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-2 ; Item – Portable Ultrasound Machine with Probe and Ovum Pick up Assembly for Bovines. (01)

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

The device will be used for Ovum Pick Up (OPU) sessions and per rectal gynaecological examination of large bovines at PLDB's Patiala IVF lab.

Technical specifications:

- A) Portable Ultrasound machine** – It should be portable/ light weight capable of providing excellent image quality in field working conditions.
- a. It must have multiple operating modes - B mode, Colour B mode, M mode, Colour M Mode, Colour Flow M Mode, Power Doppler Imaging (PDI), Directional PDI, PW Doppler with High PRF, B & M mode.
 - b. Should have high-resolution LCD (1024X768 pixels) monitor, Ergonomic full size keyboard, 8 TGC Slider segments (pods). DICOM – compressed/uncompressed, single/multi-frame, with/without Raw Data. User Programmable Pre-set Capability.
 - c. Image storage - Machine should have internal integrated capacity to store maximum number of images and external memory –SD Card/ USB HDD/ USB Stick/ all for import / export data

- d. Software should be user friendly for gynaecological exam and ova pick up sessions in bovines.
- e. Needle recognition both tip & path to help needle stand out and visualization/ display for guided aspiration is required. Models with better convenience for carrying out Ova pick up operations will be preferred.
- f. Image quality should remain at high resolution even at deep penetrations and there should be reduced noise with increasing tissue details.
- g. Suitable Z trolley to hold scanner should be provided.

B) Probes- Equipment is required to be supplied with following two probes:-

1. It should have a trans-vaginal micro convex ovum pickup probe with multi frequency (4-10 m Hz or better) and is compatible to be fitted in custom made OPU handle.
2. It should have a Endo-rectal linear probe (wide band multi frequency (5-8-mHz or better) suitable for large animal rectal examination.

C) Probe holder and needle guiding system should be slim designed with excellent ease of use, light weight, easy warming, rust proof, easy cleaning. and should be quoted and detailed along with all the accessories including ultrasound gel. The needle guiding system should have all the accessories,. Suitability for the Bovine OPU work will be preferred.

D) Aspiration Unit with test tube warmer - Vacuum pump of international reputed brand capable of maintain continuous vacuum pressure up to 300mm of Hg, suitably tested and used for bovine ova pick up operations. Media warming block for 50 ml tubes with adjustable warming temperature up to 50 degree C.

Power Supply: AC 240V, 50Hz/60Hz.

All the components A), B), C) and D) will be sub parts of the 'Standard Equipment'.

The standard equipment should be supplied along with all the accessories required for its intended use. The required accessories like needles and adapters to fit 17, 18, 20 gauge and 75 mm OPU needles along with tubing, ultrasound gel , silicon stopper for 50 ml tubes, cover for probe holder, sterile needle tubing ,disposable cover for convex probe at the time of aspiration etc. for at least 30 sessions should be supplied free of cost along with the Standard Equipment.

Successful bidder will complete installation and registration of the machine with the Authority designated by Government for the full functioning of the equipment at PLDB'S IVF Lab at Patiala at no extra cost.

Water resistant, Robust, durable and dust proof case/cover for carrying the equipment and/ or its components should be provided.

Full Functional Demonstration of the offered equipment is required.

Firm can quote and submit technical papers of more than one model/make of standard equipment or any component of the standard equipment under this item.

The standard equipment along with all the components should be warranted for two years followed by no cost AMC for 2 years with a condition of 2 visits per year. Onsite installation and training is mandatory. Supplier / OEM should have service centre in India with factory trained personnel.

Only latest updated models available on date should be quoted. Firm should provide user list of at least 5 National/ International Labs having used same make/ model for bovine OPU work along with satisfactory function report from at least 3 users.

Equipment should have all the relevant certifications CE, IEC, ISO etc supporting documents must be supplied along with tender.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided. Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-3 ; Item – Bench top Incubator for IVF work with accessories. (01)

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

Technical specifications:

- Dedicated, stackable IVF Bench top multi room Incubator with accessories.
- Incubator must have 4-6 completely separated chambers with individual temperature control and it should have heating facility for both base and lid to ensure even distribution of heat. Heating plates are to be customised for several type of dishes like Falcon; Nunc ; IVF 4 well dishes; petri dishes 60mm/ 30mm.
- There should be no cross contamination between the chambers.
- Control panel must be simple for easy and intuitive operation.

- The gas composition recovery should be in fewer than 3 minutes and temperature recovery in less than 1 minute.
- It should be Equipped with NDIR CO₂ sensor to regulates gas concentration inside the chamber. It should have Built-in PT1000 temperature sensors and gas ports for external parameter validation. Built-in humidity sensor for accurate and continuous readings.
- Operating humidity 10% to 90% relative humidity non-condensing.
- Temperature control range 25 °C to +40 °C. Temperature measurement accuracy ± 0.2 °C or better
- HEPA-VOC with UV-C filtration should clean the airstream inside the chambers.
- CO₂ control range 1.9-10% and Oxygen control range 5-20%; Input gas pressure 0.6 barr.
- Input gases 100% CO₂ and 100% N₂. Built in gas mixer and gas sensors must be able to provide accurate gas phase composition inside the chambers.
- Equipment can be easily connected to PC through data logging software. All real time parameters of the machine and performance indicators including alarms can be viewed & logged on the computer. Branded computer system having licensed Windows OS with 21" or better LED monitor and laser printer of reputed make with latest specifications suitable/ compatible to run the supplied software should be quoted and supplied. Assembled/ aftermarket computer systems, Monitor and printers will not be accepted.

Others:-

- Power Supply 220-230 VAC, 50/60 Hz
- It should be compatible with the most of available culture dishes like NUNC/FALCON/MINITUB/BD- 4/5 well dishes ; 30mm/60mm
- Time-stamped alarm notification should include description of event.
- Standard equipment should be provided with 5 Numbers filled CO₂ Cylinders and one trolley to carry them. Each Cylinder should be approximately 40 liters capacity or more (filled with medical grade CO₂, at the time of supply; certificate to be provided).
- Incubator must be supplied with 5 Numbers filled N₂ Cylinders. Each Cylinder should be approximately 40 liters capacity or more (filled with medical grade N₂, at the time of supply ;certificate to be provided).
- Compatible Two stage CO₂ regulator – 02 number capable to withhold the pressure of minimum of 1.4 bars for gas supply to incubator with indicators for pressure and quantity of gas.

- Compatible Two stage N2 regulator – 02 Number, capable to withhold the pressure of minimum of 1.4 bars for gas supply to incubator with indicators for pressure and quantity of gas.

Successful bidder will complete installation for the full functioning of the equipment at PLDB'S IVF Lab at Patiala at no extra cost.

All the accessories/ components/consumables etc required to effectively operate the equipment for its intended use will be considered as part of Standard equipment and must be inclusive in the bid quote /document.

The standard equipment along with all the components should be warranted for two years followed by no cost AMC for 2 years with a condition of 2 visits per year. Onsite installation and training is mandatory. Supplier / OEM should have service centre in India with factory trained personnel.

Only latest updated models available on date should be quoted. Firm should provide user list of at least 5 National/ International Labs having used same make/ model for bovine OPU work along with satisfactory function report from at least 3 users.

Equipment should have all the relevant certifications CE, IEC, ISO etc supporting documents must be supplied along with tender.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-4 ; Item – Refrigerated Benchtop centrifuge

(01)

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

Technical specifications:

Equipment must have excellent ergonomic design and robust build quality, easy to read display for routine lab work. Equipment should conform to the latest clinical and safety standards. Refrigerated centrifuge should be vibration free and balanced table top with noise level less than 50 d BA.

Parameter	Specification
Temperature range	-10 degree C to +40 degree C ;
RCF	21000 X g or better
Speed	14000 rpm or better
Acceleration/ Deceleration Rates	10/12 seconds
Time set Range	1 min – 99 min with 1 min increment Preferably with hold function

Other requirements:-

- Autoclavable, non-corrosive and chemically resistant rotors and buckets/ adapters are required to be supplied.
- The set temperature must be maintained at maximal rotational speed.
- Rapid cooling of centrifuge chamber from room temperature to set point is desired.
- User-friendly operation; key panel with provision to set speed, RCF, radius correction values that can be changed during centrifugation; Short spin key with selectable rotational speed.
- Rotor imbalance detection and automatic electronic rotor recognition.
- Quick pre-cooling function or the like is required.
- Continuous cooling mechanism to maintain a constant temperature after the run has been completed.
- Soft-touch lid closure is desired. Models with transparent rotor lid with bio containment will be proffered.
- Safety Lid inter lock to prevent cover opening during centrifugation.
- RCF around 3000x g with swing out metallic rotors. Following rotors should be supplied with the centrifuge:
 - Rotor for fixed angle 24 x 1.5/2.0 ml tubes,
 - Adaptors should available for 0.5ml and 0.2ml with rotor lid.
 - Swing out rotor (around 4 x 100 ml) with buckets for 5 ml or 15 ml conical tubes (total tube capacity - 8), 50 ml conical tubes (total tube capacity - 4), 1.5/2.0 mL micro tube (total tube capacity - 40).
- Step less Speed Adjustment.
- Power Supply: 220-240V 50 Hz Single Phase.

- CE marked and IVD compliant, CSA certified ; appropriate IEC technical standards.
- Full function Commissioning and installation will required to be done at PLDB's Patiala IVF Lab by the successful bidder at its own cost.

All the accessories/ components/consumables etc required to effectively operate the equipment for its intended use will be considered as part of Standard equipment and must be inclusive in the bid quote /document .

The standard equipment along with all the components should be warranted for two years followed by no cost AMC for 2 years with a condition of 2 visits per year. Onsite installation and training is mandatory. Supplier / OEM should have service centre in India with factory trained personnel.

Only latest updated models available on date should be quoted. Firm should provide user list of at least 5 National/ International Labs having used same make/ model for bovine OPU work along with satisfactory function report from at least 3 users.

Equipment should have all the relevant certifications CE, IEC, ISO etc supporting documents must be supplied along with tender.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-5 ; Item – Table top CO2 Incubator with accessories

(01)

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

Technical specifications:

CO2 incubator, air jacketed with O2 control facility will be used for culturing oocytes and embryos in highly precise controlled gas and temperature condition Design should be robust and chamber should made of single sheet of stainless steel.

- CAPACITY:- 160 L to 200L

- Temperature Range +3 degree C above ambient to +55 degree C,
- Temperature control of ± 0.10 degree C and uniformity ± 0.30 degree C
- CO2 Range 1 to 20%, having 0.1% control with temperature resistant, bulb free IR CO2 sensor.
- Oxygen Range - 1 to 21% having 0.1% control with Zirconium Oxide sensor.
- Should have condensation free humidification system humidity reservoir required to be filled without removing shelves or culture plates. RH range - Ambient to 93% at 37 degree C.
- Should have in built fully automatic sterilization cycle capable of reaching up to 180 degree C with uniform sterilization of all chamber surfaces.
- It should have perforated shelves with removable humidity pan and shelves. Minimum of 4 stainless steel shelves with eight stainless steel shelf guides are required with multiple door openings.
- HEPA air filtration system to minimize the risk of airborne contaminants entering to the incubator from multiple door openings. HEPA air filter system must maintain Class 5 clean room air purity. And it should continuously filter the entire chamber volume every minute for an aseptic atmosphere.
- Door mounted LCD/LED display with touch screen controls & data logging of temperature humidity, CO2, door openings. The system to be supplied with all the necessary tubing, ports and nozzles.
- It should have optical and acoustic alarm if set point deviation or sensor defect occurs with Door monitoring and Remote alarm. System to be filled with on board data entry and logging facility and company specific interface for communication with USB port and external instrument logging along with software so that the system can be connected to PC.
- Compatible Two stage CO2 regulator - 02 number capable to with-hold the pressure of minimum of 1.4 bars for gas supply to incubator with indicators for pressure and quantity of gas.
- Compatible Two stage N2 regulator - 02 Number, capable to with-hold the pressure of minimum of 1.4 bars for gas supply to incubator with indicators for pressure and quantity of gas.
- Integrated gas guard for CO2 and N2 for monitoring gas flow and switch between tanks.
- Independent Inner Glass Doors dividing the large opening of the incubator in to small openings (eight glass doors with latches), should mount inside heated inner glass door, removable and can be autoclaved
- Must provide all the tubing for connection from cylinders to CO2 incubator with one additional set. Should provide disconnect and fitting kit.

- Incubator must be supplied with filled CO2 Cylinders-5 Numbers. Each Cylinder should be approximately 40 liters capacity or more (filled with medical grade CO2, at the time of supply; certificate to be provided).
- Incubator must be supplied with filled N2 Cylinders-5 Numbers. Each Cylinder should be approximately 40 liters capacity or more (filled with medical grade N2, at the time of supply ;certificate to be provided).Cylinders should be provided with trolley to carry them.
- Incubator should be provided with calibration certificate after the installation
- Minimum 5 system installations of same model in India with addresses and performance reports from at least 3 users from university/ govt. organizations/ cooperatives etc.

All the accessories/ components/consumables etc required to effectively operate the equipment for its intended use will be considered as part of Standard equipment and must be inclusive in the bid quote /document .

Successful bidder will complete installation for the full functioning of the equipment at PLDB'S IVF Lab at Patiala at its own cost.

The standard equipment along with all the components should be warranted for two years followed by no cost AMC for 2 years with a condition of 2 visits per year. Onsite installation and training is mandatory. Supplier / OEM should have service centre in India with factory trained personnel.

Only latest updated models available on date should be quoted. Firm should provide user list of at least 5 National/ International Labs having used same make/ model for bovine OPU work along with satisfactory function report from at least 3 users.

Equipment should have all the relevant certifications CE, IEC, ISO etc supporting documents must be supplied along with tender.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-6; Item – Stereo-zoom microscope**(02)**

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

Technical specifications:**A) Microscope – two set of microscopes are required to be supplied; one set will be required to be installed inside the IVF Workstation.**

Zoom ratio	12 :1 or better
Zoom Range	0.63x to 8X or better
Working distance	70 mm or more
Diascopic Illumination	Should have built in OCC illumination having 32 LEDs
Incident light illumination	Should be Bifurcated fibre optic with LED cold light source
Objective	Plan Apo 1.0X
Eyepieces	10X
Observation tube	Trinocular
Base	Compact slim base

B) Camera – Two sets of cameras with all the accessories are required

Image Sensor	1/1.8” colour C MOS sensor,
Recordable pixel	2880 X 2048
Lens mount	C mount
Maximum speed	30 fps
Speed at high resolution	15 fps
Exposure time	100 microseconds to 30 seconds
Exposure control	Automatic & Manual
Interface	USB 3

C) Software – required to be loaded separately for the two set of microscopes;

The Software should have following facilities:

- Image display:-
 - Enlarge/reduce, full screen, and magnifying glass capture thumbnail scale, annotation and profile Grid LUT, histogram, and sequence replay
- Image capture:-
 - Auto-capture time lapse Z series and multi-point stitching
- Image processing:-
 - White balance and tone LUT and shading correction contrast and hue/saturation correction Edge enhancement, averaging and smoothing
- Image editing:-
 - Crop Image overlay cut, copy, paste, rotate, invert and resize component extraction Pseudo-color.
- Image analysis:-
 - Calibration(Length) Manual measurement (count, length, area, angle, circle, and ellipse) Printing, PDF output, mail transmission Optical Configurations Report generator Macro.

D) Computer system with multifunctional colour printer - Branded computer system with 21" or better LED monitor and colour inkjet multifunctional printer of reputed make with latest specifications suitable/ compatible to run the supplied software should be quoted and supplied with one set of microscope. Assembled/ aftermarket computer systems, Monitor and printers will not be accepted.

E) Job work – Successful bidder will have to install, made functional one set comprised of Microscope; camera; software; computer system with monitor and printer at one place within the IVF lab and similarly other set comprised of Microscope; camera and software is to be installed and made functional within the IVF Workstation.

The standard equipment along with all the components should be warranted for two years . Onsite installation and training is mandatory. One of the set is required to be fitted in the IVF Work station. Supplier / OEM should have service centre in India with factory trained personnel.

Only latest updated models available on date should be quoted. Firm should provide user list of at least 5 National/ International Labs having used same make/ model for bovine OPU work along with satisfactory function report from at least 3 users.

Equipment should have all the relevant certifications CE, IEC, ISO etc supporting documents must be supplied along with tender.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-7; Item – Phase contrast microscope

(01)

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

Technical specifications:

Phase contrast microscope is required for neat semen and frozen thaw semen examination.

- Make / model : - Zeiss Axio Lab / Nikon E 200 / Olympus CX 43 or above
- LED illumination.
- Eye piece 10x phase contrast objective for neat/ post thaw semen examination and should have plan10x; 20x; 40x; phase contrast objectives. (offered model with specifications required to be attached with quotation).
- The microscopes should be fitted with full heated stage, able to provide precise control of temperature from room to 55 degree C with accuracy of 0.2 degree C. (Make/ Model & specifications required along with the quotation).
- Microscope heated stage should be compatible to use analysis chambers, disposable fixed depth slides, glass slides, Makler chamber etc.
- A separate Temperature controller with mounted heating plate is required to keep slides warm- (Make/ Model & specifications are required to be attached with bid document).

The standard equipment along with all the components should be warranted for two years. Onsite installation and training is mandatory. One of the set is required to be fitted in the IVF Work station. Supplier / OEM should have service centre in India with factory trained personnel.

Only latest updated models available on date should be quoted. Firm should provide user list of at least 5 National/ International Labs having used same make/ model for bovine OPU work along with satisfactory function report from at least 3 users.

Equipment should have all the relevant certifications CE, IEC, ISO etc supporting documents must be supplied along with tender.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-8; Item – Programmable Embryo Freezer

(01)

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

Technical specifications:

Equipment is required for the controlled rate freezing of bovine embryos and oocytes using liquid nitrogen as cooling medium.

- It should be easy to use and should work on AC & DC power supply.
- It should be programmable with / without the use of external computer.
- Operating module must include real time temperature logging with actual temperature progress monitored and recorded/ displayed.
- It should be equipped with user friendly software to design and operate customised freezing programs.
- Thermometry accuracy +0.1 degree C.
- It should be of reputed international brand.
- All the components including cryobath; cryochamber and controller are to be quoted and supplied by the same entity.
- Cryo-chamber should provide easy access for loading, manual seeding, inspection and removal of straws. Standard 23 slot core capable for 0.25 ml /0.5 ml straws.
- Controller should be able to provide reliable and accurate temperature regulation of specimen. It should have power back up / battery pack.
- Temperature control range +20 degree C to -43degreeC.
- Cooling rates can be specified from 0.1 degreeC/ min and temperature can be held at any point within the control range. And at the end of program controller can be directed for free fall (drop beyond control range)

- Temperature warning (onscreen or sound): User-Definable from $\pm 1.0^{\circ}\text{C}$ to $\pm 3.0^{\circ}\text{C}$
- Maximum number of internal programs: 15 or more
- Minimum Temperature Step Size: 0.04°C
- Temperature Control Resolution: 0.05°C
- Controller computer communication Ports: USB /Equipment is connectable to the PC. A branded computer system with 21" or better LED monitor and laser printer of reputed make with latest specifications suitable/ compatible to run the supplied software should be quoted and will be part of standard equipment. Assembled/ aftermarket computer systems, Monitor and printers will not be accepted. Temperature display & User Interface: prominent and easy to operate
- Temperature Controller can be programmable with up to 15 or more temperature programs. It should also be programmable when operated with a computer using software.
- It should have Graphic user interface with real time temperature graph and digital data.
- It should include a temperature logging module and allows actual temperature progress to be monitored and recorded in the computer/ SD card (when used).
- Temperature Data logger should have following specifications:
 - Temperature resolution: 0.1°C
 - Sampling rate: 10 per second
 - Recording rate: 10 per minute (every six seconds)
- All suitable power cords/ power packs/ battery etc should be supplied with the machine.
- Horizontal Carry Case should accommodate the Freezer along with Cryo bath and all other accessories. The case should be cushioned internally to provide protection during shipping or storage.

All the accessories/ components/consumables etc required to effectively operate the equipment for its intended use will be considered as part of Standard equipment and must be inclusive in the bid quote /document .

Successful bidder will complete installation for the full functioning of the equipment at PLDB'S IVF Lab at Patiala at its own cost.

The standard equipment along with all the components should be warranted for two years followed by no cost AMC for 2 years with a condition of

2 visits per year. Onsite installation and training is mandatory. Supplier / OEM should have service centre in India with factory trained personnel.

Only latest updated models available on date should be quoted. Firm should provide user list of at least 5 National/ International Labs having used same make/ model for bovine OPU work along with satisfactory function report from at least 3 users.

Equipment should have all the relevant certifications CE, IEC, ISO etc supporting documents must be supplied along with tender.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-9; Item – Dry Bath

(03)

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

Technical specifications:

Dry Bath for keeping the test tubes/ micro centrifuge tubes warm for working in a IVF Lab. Equipment should be of international reputed make, robust design, sturdy for routine work and having Electro-statically applied finish that resists rust, corrosion, and scratches

- Number of chamber: Dry bath should accommodate 2 blocks and they should be interchangeable to accommodate different size blocks
- Built in temperature sensing probe design for temperature accuracy and control. Precise temperature control with PID circuit.
- Digital display and touch controller.
- Main input: 220V, 50-60Hz;
- Temp. Range: from ambient+5°C to 100°C or better
- Temperature control Accuracy: $\pm 0.5^{\circ}\text{C}$ or better
- Temperature Uniformity at 37°C: 0.2°C or better
- In built Timer is required.
- Temperature increment: 0.1°C

- Replaceable heating Blocks: Fast heating High grade, nonporous aluminium/alloy with anodized surface block; 3 blocks of following sizes should be provided:-
 - A) 1 Block for 12 x 15ml tubes
 - B) 1 Block for 5 x 50ml tubes
 - C) 1 Quick Flip Block, that can accommodate 24 x 1.5/2.0 ml or 14 x 0.5 ml or 6 x PCR Strips or 48 x 0.2 ml tube
- Provision for lifting the blocks is required.

All the accessories/ components/consumables etc required to effectively operate the equipment for its intended use will be considered as part of Standard equipment and must be inclusive in the bid quote /document .

Successful bidder will complete installation for the full functioning of the equipment at PLDB'S IVF Lab at Patiala at its own cost.

The standard equipment along with all the components should be warranted for two years. Onsite installation and training is mandatory. Supplier / OEM should have service centre in India with factory trained personnel.

Only latest updated models available on date should be quoted. Firm should provide user list of at least 5 National/ International Labs having used same make/ model for bovine OPU work along with satisfactory function report from at least 3 users.

Equipment should have all the relevant certifications CE, IEC, ISO etc supporting documents must be supplied along with tender.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-10; Item – Bead Bath

(02)

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

Technical specifications:

Bead bath with temperature control unit and is capable of holding embryo/ semen straws and various tubes etc.

- Temperature controlled incubator for sample tubes or straws of different sizes (up to 15 mm diameter), with beads inside for secure fixation.
- Usable height minimum 150mm
- Temperature range: From ambient and +5°C to 80degree C.
- Requires a separate control unit.
- Temperature uniformity at 37degree C :± 0.50degreeC
- Main Input 220-230 V,50-60 HZ
- Beads: Thermal uniformity at 37degreeC: ± 1-2degreeC, beads working temperature range should be – 80degreeC to 350degreeC
- Detail of beads technical parameters and nature of material; quantity to be supplied required to be clearly mentioned in the bidding document.

All the accessories/ components/consumables etc required to effectively operate the equipment for its intended use will be considered as part of Standard equipment and must be inclusive in the bid quote /document.

Successful bidder will complete installation for the full functioning of the equipment at PLDB'S IVF Lab at Patiala at its own cost.

The standard equipment along with all the components should be warranted for two years. Onsite installation and training is mandatory. Supplier / OEM should have service centre in India with factory trained personnel.

Only latest updated models available on date should be quoted. Firm should provide user list of at least 5 National/ International Labs having used same make/ model for bovine OPU work along with satisfactory function report from at least 3 users.

Equipment should have all the relevant certifications CE, IEC, ISO etc supporting documents must be supplied along with tender.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-11; Item – Double Distillation (Quartz) apparatus**(01)**

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

Technical specifications:

All Quartz Double Distillation Plant for getting ultra-pure and pyrogen free water suitable for biological processes. The Quartz Double Distillation Plant should be of compact design with maximum safety and easy to operate.

- Made of Quartz glass, demountable model: primary boiler of the Plant can be dismantled from the second boiler.
- Should have double wall condenser.
- Primary boiler should be provide with 'O' ring on which secondary boiler and condenser unit mounted.
- Output capacity (Approx.): 1.5 Litres/hour
- Cooling water consumption (approx.): 1 Litres/minute
- Conductivity(S/cm):1×10^{-6}
- Boiler and condenser made of quartz glass
- Supplied with Micron Filter for feed inlet
- Following accessories should also be provided:

Particulars	Quantity
Quartz Reservoir (with Teflon Screw cock) for storage of High purity water	1
Reservoir Stand (SS)	1
Quartz Bulb Condenser for extra cool distillate	Sufficient to operate machine for 2 years
Dechlorite Filter - To remove chlorine particles from water	Sufficient to operate machine for 2 years
Phosphate Cartridge - To prevent scale formation	Sufficient to operate the machine for 2 years

All the accessories/ components/consumables etc required to effectively operate the equipment for its intended use will be considered as part of Standard equipment and must be inclusive in the bid quote /document .

Successful bidder will complete installation for the full functioning of the equipment at PLDB'S IVF Lab at Patiala at its own cost.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-12; Item – Heat Stages

(02)

Equipment should be robust and sturdy and able to perform routine work in an IVF lab. It should be of reputed international brand/ make with service and technical back up in India. Equipment/its parts must be indicated for use in IVF –Assisted Reproductive Technologies and related work in bovines.

Technical specifications:

Equipment will be used for keeping the petridishes, micro slides, cover slips etc warm. There should be uniform heat spread throughout the area.

- Heavy duty construction for effortless repeated use.
- Thermostat should have accuracy +/-0.5 degree C with real time digital temperature display.
- Power compatibility -220-230v ; 50Hz
- Minimum size workable plate should be of around 1.6 feet.

Successful bidder will complete installation for the full functioning of the equipment at PLDB'S IVF Lab at Patiala at its own cost.

The standard equipment along with all the components should be warranted for two years. Onsite installation and training is mandatory. One of the set is required to be fitted in the IVF Work station. Supplier / OEM should have service centre in India with factory trained personnel. Only latest updated models available on date should be quoted. Firm should provide user list of at least 5 National/ International Labs having used same make/ model for bovine OPU work along with satisfactory function report from at least 3 users.

Equipment should have all the relevant certifications CE, IEC, ISO etc supporting documents must be supplied along with tender.

Original catalogue should be provided for the system featuring all the technical points for the offered Model/ Make. Point wise compliance statement should be provided Packing list should be provided along with the shipment. Technical Literature, brochures and all other relevant information supporting the bid must accompany the Technical Bid.

Sr no-13; Item –Milk Testing Equipment

(01)

1. The equipment should work based on a principle recognized in relevant international standard(s) or its performance should have been validated by a credible international agency against a recognized protocol for evaluation and validation of alternative quantitative methods developed by an international standards agency.
2. The measuring principle used in the machine should measure Fat, Protein, SNF/Total Solids in the milk directly (not calculated). Results should be expressed as mass fractions in percent for all these parameters.
3. The output of the machine should enable the user to read Fat, Protein, and Solid Not Fat (SNF)/ Total Solids content in cow and buffalo raw milk samples or milk samples added with milk preservatives (such as Potassium dichromate or Bronopol) and stored at ambient temperature (5-45o C). In case of preserved milk samples, the equipment shall measure for the above parameters at least up to 72 hours of sample collection.
4. The equipment should be able to test different types of milk samples (cow milk, buffalo milk) without need for new calibration every time the type of milk being tested is changed. To this end, the equipment may either have a seamless ability to test different types of milk or may have different modes that can be calibrated for different types of milks.
5. Equipped with automatic rinsing, automatic cleaning and programmable automatic zero calibration facilities.
6. Should have facility for data transfer to PC through Serial Port. Necessary Software and data cable should be supplied.
7. Measurement Range:

Parameters	Range
Fat	035%
Protein	0-7%
SNF	0-15%

Total Solids 0-50%

8. Environmental factors: The unit shall be capable of operating under hot, humid and dusty Conditions.
9. Power Supply: Power input to be 220-240VAC, 50 Hz.
10. Documentation: List of important spares and accessories with their part number and costing to be supplied.
11. Others:
 - a) Cleaning Solution and consumables for 1 year of testing to be supplied (with an average of 100 samples to be tested per day).
 - b) Initial training on operation & calibration of the equipment shall be provided to the technicians.
 - c) Authorized service personnel to be readily available for repairs and maintenance of the machine.
 - d) Required offline —line interactive UPS (two hours of power back up) for ensuring uninterrupted power supply during operation shall be provided.
 - e) If a computer is essential for routine operation of the equipment, the necessary Computer hardware and **software** shall also be supplied **along** with the **equipment**.
 - f) Free service and maintenance for 5 years from the date of successful installation shall be provided.

Sr no-14; Item –Smart Weighing Scale (SWS)

(75)

The primary objective of the SWS is to facilitate milk recorder, weighing of the total quantity milk produced by an animal at farmers' place along with GPS coordinates and forward the relevant data to INAPH system running on the device connected to SWS via Bluetooth.

Features:

- 1) Weighing capacity upto 25 kgs with facility to take multiple measurements, if required. (refer Annexure-I)
- 2) LCD/LED display of weight in Kgs, upto three digits after decimal (in grams).
- 3) GPS enabled.
- 4) Facility to communicate four attributes (Date-Time stamp, Weight, GPS Coordinates (latitude, longitude), Device ID) in pre-determined JSON format via Bluetooth to a connected device having OS Android, MS Windows.
- 5) Separate button on the scale for ON/OFF, Send, Tare; Add Weight Buttons (M+, MR, MC), Calibration.

Technical Specifications

1. Scale Dimension (l x w x h) : 20-25 cm x 20-23 cm x 7 cm (max)
2. Pan (Platform) size : 20-25 cm x 20-25 cm
3. Weight of Scale : Maximum 2.5 Kg (including battery)
4. Material :
 - a. Scale: MS body.
 - b. Pan (Platform): StainlessSteel.

5. Weighing Capacity: Maximum 25 Kg.
 6. LCD/LED Display Unit:
 - a. *Display of Date, Time and Device ID while booting the machine.*
 - b. Weight in Kg format, upto three digits after decimal (in grams).
 7. Accuracy /Precision: Class - III accuracy compliance. Least count 10 gram (max).
 8. Indicators:
 -
 - a. Device On/Off LED.
 - b. "Low Battery" LED.
 - c. "Charging in progress" LED : When connected to AC power source.
 - d. "Charge level" indicator.
 - e. "GPS Connection" indicator.
9. Type: Cantilever load cell.
 10. Touch Buttons:
 - a. ON/OFF : Button on the scale to switch on /off the device.
 - b. TARE : Button on the scale for tare arrangement,
 - c. M+ : Button on the scale to allow accumulation of weight in memory.
 - d. MR : Button on the scale to recall the accumulated weight available in memory.
 - e. MC : Button on the scale to clear the accumulated weight, if any available in memory.
 - f. SEND : Separate button on the scale to forward the data to connected device. In case, GPS signals are not available (indoors), the SEND button will not forward the data string, display message "GPS ERROR"

TERMS AND CONDITIONS

1. E-Tenders are invited for the supply of the items listed from 1 to 14 for the department through the e-tendering process of Govt. of Punjab. For additional details such as items specifications, important dates etc visit the website: <http://eproc.punjab.gov.in> Tender form, specifications, terms and condition can be obtained from this website on payment of Rs. 1000/- (online payment) as per e-tendering procedure.
2. Tender shall be accepted only from manufacturers/authorized dealers.
3. The tender will be in double bid system i.e. Technical/Pre-qualification Bids and Financial/Commercial Bids .The Technical Bid should contain comprehensive technical details of the item (Brochure/Catalogue), profile of the manufacturer/supplier, main current clients, experience, tentative delivery period. Financial/Commercial Bids should contain the price (inclusive GST), terms and conditions. Technical Bids would be opened first and Commercial Bids will be opened subsequently of only those tenders who qualify in the Technical Bids. Incomplete/conditional Tenders not received as per e-tendering procedure will be out rightly rejected.
4. The bidder must enclose attested copies/proof of consisting, Pan Card, TIN No., Service Tax No., GST, EPE, Registration/Authorization of the firm etc.
5. The bidder firm should not be black listed/debarred by any department/organization.
6. The e-tenders should be submitted online till 15/07/2020 upto 5:00 pm and the same will be opened on 16/07/2020 at 11:00 am.
7. The e-tender must be accompanied with earnest money amounting Rs. 1,00,000/- (Rs. One Lakh only) (online payment) as per e- tendering procedure.
8. Tenderers are also required to submit a hard copy of the technical bids of this tender on or before the closing date 15/07/2020, upto 5:00 pm at the office of the under signed i.e. Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, SAS Nagar.
9. The undersigned reserves the right to accept or reject one or all offers/tenders and holds the discretion to increase/decrease the quantity of any or all the items.
10. Successful tenderers will have to submit a Security deposit of 10 % of the ordered value within the stipulated period of time after issuance of orders.
11. 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. For any clarification/difficulty regarding e- tendering Process please contact on helpdesk No. 0172-2970263& 0172-2970284 .
12. E- Tender details can also be obtained from the Departmental website www.husbandrypunjab.org.
13. Tender shall be accepted only from manufacturers/authorized dealers.
14. Rates should be quoted in Indian Rupees only, FOR anywhere in Punjab/Chandigarh.
15. All applicable taxes should be included in the quote.
16. Brochure/leaflets/catalogues for item should be submitted alongwith tender.

17. Trouble free performance of the equipment for a minimum period of two years from date of commissioning should be guaranteed . Any defect intimated should be attended to and rectified within 15 days of receipt of such communication within guarantee period. The guarantee shall include cost of spares and labour.
18. 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.
19. Full details of after sale service offered during the post guarantee period should be furnished along with tender specified.
20. Information of actual users of the item in India supported with evidences and performances should be furnished alongwith tender.
21. If required the working of the equipment must be demonstrated in any place to be specified by the supplier.
22. 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. Supplier will have to deposit 10% value of the total price of the items in the form of Demand Draft/FDR payable at Chandigarh in the name of Punjab Livestock Development Board, within 10 days of receipt of supply order as security money.

INSTRUCTIONS TO TENDERERS

- 1) Quotations must be enclosed in a properly sealed envelope addressed to the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar by designation and not by name. The quotations must be superscribed “ Quotation for the **items** during the year **2020-21** as called for in e-tender notice, dated **25.06.2020**” . The quotations must reach the O/o Punjab Livestock Development Board Livestock Complex, Sector-68, S.A.S.Nagar, before 15-07-2020 till 5.00 p.m on the date mentioned in the tender notice.
- 2) In the event of the quotations, being submitted by a firm it must be signed separately by each member thereof, or in the event of the absence of any partner it must be signed on his behalf by a person holding a power of attorney authorizing him to do so or in the case of a company the quotations should be executed in the manner laid down in the said company’s articles of Association. The signatures on the quotations should be deemed to be authorized signatures.
- 3) All the columns of the quotations form shall be duly , properly and exhaustively filled in. The rates and units shall not be overwritten. Quotations shall always be both in the figures and words. The words “ No quotations” should be written across any or all of the items in the Schedule for which a tenderer does not wish to tender.
- 4) Any omission in filling the columns of “ Units” and “rates” shall altogether debar a quotation form being considered.
- 5) All corrections must be signed by the tenderers.
- 6) Samples must be sent of all items quoted for each when application or description are laid down. Such samples must be sent freight paid or delivered free to the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar. Each sample should bear a sealed label marked with the tenderer name and address and reference to the item number in the schedule. All instructions regarding the sample specified in the notice should be compiled with. All samples except those against accepted quotations must be removed by the Supplier on a date to be specified by the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar failing which the samples will become the property of PLDB and no claim, therefore will be considered .Loss of samples or damage or wear and tear or injury by testing exposure experiment etc shall be no ground for compensations in any form.
- 7) A sum of **(INR) Rs One lakh** must be deposited as earnest money in Bank pledged to the Chief Executive Officer, Punjab Livestock Development Board and the receipt must accompany the tender form without which it will not be considered. The said amount will be regarded as forfeitable to PLDB, if any successful tenderer fails within the time fixed by the Chief Executive Officer,Punjab Livestock Development

Board, Livestock Complex, Sector-68, S.A.S. Nagar either to sign the contract or terms contained in the invitation for tender, its tender form and quotation form and condition of contract referred to in the invitation of tenders, or to pay the additional security referred to in the next clauses below:-

1.National Saving Certificate.

2.Postal Saving Bank's Pass Book.

3.State Bank's Call Deposit Receipt or Fixed Deposits

4.Deposit receipts mentioned in item no. 3 tendered by any Schedule bank are also accepted provided these are countersigned by the State Bank of India, whereby the State Bank of India undertakes full responsibility to indemnify this department, in case of default. The above deposits can also be accepted if these are countersigned by the Reserve Bank of India against requisite security furnished by the Scheduled Bank concerned to the reserve bank of India and the reserve Bank of India advises this department that the Deposit Receipt may be accepted.

- 8) The successful tenders may be required to deposit in addition as security for the due performance of the contract an amount equal to 10 percent of the approximate value of the estimated supply.
- 9) The Additional Chief Executive Officer, Punjab Livestock Development Board, Chandigarh will have the right of rejection all or any of the quotations, without assigning reasons.
- 10) No tender will be considered unless and until all the documents are properly signed.
- 11) The quotations will be regarded as constituting an offer or offers open to acceptance on whole or in part or parts at the discretion of Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar, until the
- 12) In the event of tender being accepted the quotations will be converted into a contract which will be governed by the conditions in pages 1 to 4 read with these instructions.

Read and accepted

Signatures of the Tenderers

I/We hereby quote to supply the goods material specified in the under-written schedule in the manner in which and within the time specified as set forth in the conditions of contract as pages 1 to 4 at the rates given in the schedule below. The conditions on pages 1 to 4 will be binding upon me/us in the event of the acceptance of my /our tender.

I/We herewith enclose deposit receipt for a sum of Rs.....as security money and should I/We fail to execute an agreement embodying the said conditions and deposit security as laid down in the form within 10days of the acceptance of my/or tender. I/We hereby agree that the above sum of security money shall be forfeited to the Additional Chief Executive Officer, Punjab Livestock Development Board, Chandigarh.

SCHEDULE "B"

Conditions of Contract

This contract is to last fromto.....but in the event of any breach of the agreement at any time on the part of the Contractor, the Contract may be terminated summarily by the Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar without compensation to the Contractor.

Any change in the constitution of the firm shall be notified forth-with by the contractor in writing to the authority sanctioning the contract and such changes shall not relieve any former member of the firm from any liability under the contract.

No new partner/partners shall be accepted into the firm by the contractor in respect of this contract unless he/they agree to abide by all its items, conditions and deposit with the officer sanctioning the contract a written agreement to receipt or acknowledgement or that of any partner subsequently this effect. The contractors/accepted as above shall bind all of them and will be as sufficient discharge for any of the purposes of the contract.

2. The contractor will supply nothing but genuine articles e.g.....described in column 2 of schedule A from time to time in such quantities as may be entered in the indents sent at the rates set forth in column 3 of schedule A for use in offices/institutions/departments under the Administrative control of Government of the Punjab, as may be required by the indenting officers. Mentioned in schedule C hereto annexed on behalf of the Government requisition from officers, not mentioned in schedule C hereto annexed should before compliance be sent in original to the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar for instructions and the officer concerned advised accordingly. No guarantees can be given as to the quantity which will be ordered during this period. But the purchaser undertakes to order from the contractor all stores as detailed in the schedule A which he requires to purchase except that he reserves to himself the right of placing the contract with one or more contractors as he may think fit and in consideration of this undertaking by Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar the contractor binds himself not to revoke this contract during the said period. The quantities of stores given in the tender are approximate only.

3. The articles to be supplied under this contract will be of the quality equal and answerable in every respect to the specifications given in the list accompanying with the tender and approved by the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar. The contractor shall be responsible for all complaints as regard the quality. In case of dispute regarding quality of articles the decision of the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar will be final and binding on the Contractor. It will be open to the ACEO, PLDB to send samples submitted by the Tenderer/contractor to any laboratory for chemical analysis and the cost thereof will be borne by the tenderes/contractor.
4. The Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar may by notice in writing call upon the Contractor to supply additional articles to serve as sample and upon such notice in writing the Contractor shall at his own cost be bound to supply samples. Such additional samples being in all respect of the same quality as the sample supplied first.
5. The contractor will be responsible for damage or loss in transit and replace good broken or lost within 10 days from the date of notice thereof.
6. Unless when specially ordered otherwise in the order accompanying the indent all goods must be dispatched within 14 days of the receipt of indent by the Contractor.
7. Conditions as to time for performance whether laid down herein or in any indent shall be always regarded as the essence of the contract.
8. The panel of officers appointed by the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar shall have the power to inspect the stores before, during or after manufacture, collection, dispatch, transit or arrival and to reject the same or any part or portion after the written approval of Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar, if he or they be not satisfied that the same is equal or according to the sample submitted by the Contractor. The Contractor shall not charge or be paid for supplies rejected as above and such supplies shall be removed by the Contractor at once and at his expense. He shall neither claim nor be entitled to payment for any damage that rejected supplies may suffer from any harm whatsoever incidental to a full and proper examination and any test of such supplies. Board shall be under no liability whatever for rejected supplies and the same will be at the Contractor's risk. Rejected supplies shall be removed by the Contractor within 10 days after notice has been issued to him of such rejection and failing such removed/ rejected goods will be at Contractor's risk and PLDB may charge the Contractor rent for the space occupied by such rejected goods.
9. The contractor shall provide without any extra charge all materials, tools, labour and assistance of every kind which the aforesaid officer may consider necessary for any test or examination which may be required to be made on the contractor's premises and shall pay all cost thereon. In the case of stores inspected at maker's premises, the maker shall provide all facilities including testing appliances, for making necessary test other than special test or independent test. Failing the facilities at his own premises for making these tests, the contractor shall bear the cost of carrying out tests elsewhere. The contractor shall also provide and deliver free of charge at such place as the aforesaid officer may direct such materials as he may require for tests by chemical analysis or independent testing machine. If, for the purpose of determining the quality of stores the aforesaid officer finds it

necessary to have the stores tested at the test house or laboratory, expenses incidental to the test shall be borne by the contractor. On the failure of the contractor to pay the expenses within ten days of the receipt of intimation in this behalf from the Inspecting Officer, shall have the right to deduct the amount from the security deposited by the contractor and if the amount so deducted is not deposited within 10 days, the Additional Chief Executive Officer, Punjab livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar may treat the default as a breach of the agreement and proceed under clause (I) of the agreement without further notice. Further the aforesaid officer shall have the right to put all articles of materials to such tests as he may think proper for the purpose of ascertaining whether the same or in accordance with the specifications or sealed sample mentioned in the tender and to cut on out off/or destroy a portion not exceeding 2 percent from each delivery for such purpose the quantity so cut out or off and/or destroyed as aforesaid shall be replaced by the contractor free of charge.

10. Packing cases containers, gunny packages, etc. which may be used for purposes of packing and which are delivered with stores will not be returned and paid for unless specially stipulated and then at contractor's expenses.

11. Unless otherwise specified in a requisition bills, for the whole of the goods referred to in each indent in triplicate, will be prepared and submitted by the contractor to the consignee for direct payment under intimation to the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar. The balance full amount as the case may be, will be paid on receipt of stores in good condition after their verification as regards specification etc.

Should the payment of any bill be not made within three months from the date of its submission, the party to whom the bill was forwarded should be addressed first. Failing satisfaction, the matter should be reported to the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar. All such complaints should give :-

- i) The number and date of the requisition.
- ii) The designation of the requisition officer.
- iii) The designation and address of the officer to whom the bill was sent by mentioned in (iv) above.
- iv) Full reference to reminders if issued.

12. (i) With every dispatch of goods of material under this contract invoices, in triplicate, will be prepared by the Contractor. Invoices, in duplicate, are to be sent by the contractor to the Indenting Officer the duplicate to be returned by Indenting Officer with the quantities or number received duly noted thereon and the third copy to be sent by the Contractor to the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar of record in his office.

(ii) Railways Receipt will be forwarded to the consignee immediately after dispatch of stores, Should any demurrage charges be incurred owing to delay on the part of the contractor in forwarding the railway receipt the amount of such charges will be deducted from the bill.

(iii) The Contractor shall dispatch material 'Freight paid' in all cases where there is for destination. In the event of their failure to do so a penalty of 5 percent will be charged on the amount paid as freight by Indenting Officer on their behalf.

(iv) The Contractor will send to the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar. Quarterly statement of the goods supplied under this arrangement in the following form :

Name of Office	Indent No.	Name of articles	Quantity of No. supplied and to whom supplied and where	Value of supplies	Remarks
1	2	3	4	5	6

(v) All dispatches by the rail will be made at railway risk at the expenses of the Indentor (except by firm who have quoted rates F.O.R. any place in the Punjab) unless the Indentor give instructions to dispatch at owner's risk in which case all responsibility for loss in transit will be with the Indentor.

This is subject to the condition that the material are surely packed by the suppliers in sound containers and the consignment is accepted by the carriers without any adverse remarks as to the packing or the conditions of the containers. In case of any adverse remarks, the responsibility with the losses in transit will rest with the suppliers. Subject to those conditions the contractor will be entitled to change or by paid for supplies broken. Lost or damaged in transit. The Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar will be the authority to determine whether or not the breakage, loss or damage was caused through the contractors negligence and the decision of the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar or some other officer/acting in his behalf shall be a final and conclusive against the contract. Such rejected supplied shall be the contractor at his on expenses.

(vi) If during the currency of the contract the specification of article or articles to be supplied there under be changed the contractor shall continue to comply with

demands for the supply of the said articles in accordance with the new specification at a rate to be mutually agreed to in writing at the time of such change and in default of such agreement the contract in so far as it relates to the said article or articles under respect of which no agreement has been arrived at, shall terminate but no such change shall affect the supply of any other articles under the contract or entitle the contractor to any compensations.

13. In the event of withdrawal or discontinuance of any articles or articles and consequent ceasing of or reduction in demand the contractor shall not be entitled to any compensation. Government will, however make all reasonable endeavors to give warning of any impending complete withdrawal or of any reduction seriously affecting quantities likely to be required under contract.

14. TO BE SUBMITTED BY EXISTING CLAUSE 14.

The time for and date of delivery or dispatch stipulated in a supply order shall be deemed to be the essence of the contract and should the contractor fail to deliver on dispatch any consignment within the period prescribed or such delivery or dispatch, stipulated in the supply order, the delayed consignment will be subject to 2 percent penalty per consignment per month recoverable on the value of the stores supplied. In case of non payment by the Contractor recovery will be made from his bill or amount or earnest money or security deposited with the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar provided also that:-

a) No recovery of penalty will be made if the delayed supplies are accepted by extending the delivery period either by the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, S ector-68, S.A.S. Nagar.

b) On the failure of the supplier to make supply within the extended period on receipt of such information in the office of the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar, risk purchase at the cost of supplier will be made by the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar. The differences of excess cost thus incurred will be recovered from the supplier in a suitable manner and even from his pending bills, earnest money or security whichever is available This procedure will be adopted after sending registered notice to the supplier to supply store within 15 days.

15.The contractor acknowledge that he has made himself fully acquainted with all the conditions and circumstances under which the supplier required under the contract will have to be made or furnish and with all the terms, clauses, conditions, specifications and other details of the contract and the contractor shall not plead ignorance of any of those as

excuse in case of complaint against or on rejection of supplies tendered by him or with a view either to asking for enhancement of any rates agreed to in the contract or to evading any of his obligations under the contract.

16. No payment will be made in advance for any supplies under this contract.

17. i)The contractor shall not :-

a) assign or sublet the contract without written approval of the officer sanctioning the contract.

b) Disclose details of the conditions governing this contract to unauthorized persons (Indenting against this contract is permissible only for the bonafide use of Govt. departments and quasi public and not for private parties or for the private use of the Government Officer.

(ii) In the event of the Contractor failing duly and properly to fulfill or committing breach of any of the terms and conditions of this contract or repeatedly supplying goods liable to rejection hereunder or failing, declining neglecting or delaying to comply with any demand i.e. requisition or otherwise not executing the same in accordance with the terms of the contract or if the contractor or his agents or servants being guilty of fraud in respect of the contract or any other contract entered into by the Contractor or any of his partners or representatives thereof with PLDB directing, giving promising or offering any bribes, gratuity, gift, loan, perquisite reward or advantage pecuniary or otherwise to any person in the employment of Government in any way relating to such officer or person or persons office of employment or if the contractor or any of his partners become insolvent or apply for relief as insolvent debtor or commence any insolvency proceeding or make any compositions with his/her creditors or attempts to do so then without prejudice to PLDB rights and remodels otherwise PLDB shall be entitled to terminate this contract forth with and to blacklist the contractor and purchase or procure or arrange from Governments stock or otherwise at the contractors risk and at the absolute discretion of the Additional Chief Executive Officer, Punjab Livestock Development Board, Livestock Complex, Sector-68, S.A.S. Nagar.

The manner, place or time of such purchases, such supplies as have not been supplied or have been rejected under this agreement or are required subsequently by Government there under and in cases where issues in replacement are made from Government's stocks or supplies the cost and of value of such stocks supplies together with all incidental charges of expenses shall be recoverable from the contractor on

demand and the contractor shall not be entitled to benefit from any profit which may thus accrue to Government.

The termination of this contract in whole or part under these conditions shall not be affected by the acceptance, meanwhile or subsequently, supplies of accepted or made at any station whether in ignorance of the termination or otherwise.

18. If any question, difference or objection what so ever shall arise in any way connected with or arising out of this instrument or the meaning or operation of any part thereof or the rights, duties or liabilities of either party then save in so far as the decision of any such matter is herein before provided for and has been so decided every such matter including whether its decision has been otherwise provided for and/or whether it has finally decided accordingly or whether the contract should be terminated or has been rightly termination in whole or part and as regards the rights and obligations of the parties as the result of such termination shall be referred for arbitration to any officer appointed by the Punjab Government acting as such at the time of reference and his decision shall be final and binding and where the matter involves and a claim the amount if any awarded in such arbitration shall be recoverable in respect of the matter so referred.

19. If the price of a contracted articles is controlled by the Government, the payment will in no case be made at higher rate than the contracted rate.

In witness thereof the parties have unto set their hands on the dates indicated below :

1. (In the case of a firm)

Signed by the above named firm of

Through.....partner of the firm.

Date _____

Signature

2. (In the case of company)

The seal of the.....company Ltd., was affixed by virtue of the resolution of the Board No._____ dated_____ the ____ day of _____ 2020

Seal

Signature

1. (In either case)

In the presence of

(i) Signature

Address

Description

(ii) Signature

Address

Description

Signed by.....

Date

Signature of.....

On behalf of the Governor of

Punjab(India)

REGULAR FORM OF SECURITY DEPOSITS PLEDGED TO THE CHIEF EXECUTIVE OFFICER, PUNJAB LIVESTOCK DEVELOPMENT BOARD C/O DIRECTOR, ANIMAL HUSBANDRY, PUNJAB, CHANDIGARH.

1. National Saving Certificates.
2. Postal Saving Bank's Pass Book.
3. State Bank's Call Deposit receipt or fixed Deposit receipt.

4. Deposits receipts mentioned in item No.3 tendered by any scheduled bank are also accepted provided that these are countersigned by the National Bank of India, whereby the State Bank of India undertakes full responsibility to this department, in case of default. The above deposit can also be accepted if these are countersigned by the Reserve Bank of India against requisite security furnished by the scheduled bank concerned to the Reserve Bank of India and the Reserve Bank of India advises this department that the deposit receipt may be accepted.

The contractor/seller hereby declare that the goods/stores articles sold to the buyer under this contract shall be of the best quality and workmanship shall be strictly in accordance with the specification and particular contained mentioned in the clause ____ hereof and the contractor/seller hereby guarantees that the said goods/stocks/articles would continue to conform to the description and quality

aforesaid for a period of ____ days/months from the date of delivery of the said goods/stores/articles to the purchaser and that notwithstanding the fact that the purchaser (Inspector) may have inspected and/or approved the goods/stores/articles if during the aforesaid period of ____ days/months the said goods/stores/articles be discovered not to conform to the description and quality aforesaid or have deteriorated and the decision of the purchase in that behalf will be final and conclusive) the purchaser will be entitled to reject the said good/stores/articles or such portion thereof as may be discovered not to conform to the said description and quality. On such rejection the goods/articles/stores will be at the seller's risk and all the provisions herein contained relating to rejection of goods etc. shall apply. The contractor/seller shall if so call upon to do, replace the goods etc. or such position thereof as rejected by the purchaser such damages as may rise by reason of the breach of the condition herein contained. Nothing herein contained shall prejudice any other right of the purchaser in that behalf under this contract otherwise.