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**Nanaji Deshmukh Veterinary Science University Jabalpur**  
**COLLEGE OF VETERINARY SCIENCE AND ANIMAL HUSBANDRY,**  
**RASALPURA, MHOW – 453 446 (M.P.)**

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No. 172 /Tender/18

Dated: 25.01.2018

**SHORT TENDER NOTICE**

Sealed tenders are invited from the reputed firms, manufacturers, and their authorized dealer(s) for supply of 500 MA digital X-Ray Machine & Portable Diagnostic Veterinary ultrasound Scanner during financial year **2017-18**. The cost of tender document is Rs.1000/- only per item, which can be purchased either in cash or by crossed DD in favor of Dean, Veterinary College, Mhow. The tender can also be downloaded from website [www.ndvsu.org](http://www.ndvsu.org) in which case a DD of **Rs.1000/-** per item should be enclosed along with tender. The last date for purchase and submission of tender form is **15/02/2018 and 19/02/2018**, respectively. The cover shall bear the address of bidder and be super-scribed with words **“TENDER FOR 500 MA DIGITAL X-RAY MACHINE/PORTABLE DIAGNOSTIC VETERINARY ULTRASOUND SCANNER during 2017-18 ”** Technical bid of tender will be opened on **20/02/2018 and financial bid on 28/02/2018 at 11.00 a.m.** Tender submitted without EMD shall be rejected. The undersigned reserves the right of accepting or rejecting the tender in full or in part.

DEAN  
College of Veterinary Science & Animal Husbandry  
Mhow

**TERMS & CONDITIONS OF TENDER FOR PURCHASE OF 500 MA Digital X-Ray  
Machine & Portable Diagnostic Veterinary Ultrasound Scanner  
DURING THE YEAR 2017-2018**

No.172/Pur./2018 Dated.25.01.2018

M/s. \_\_\_\_\_.

1. The tender document may be downloaded either from the website of the University [www.ndvsu.org](http://www.ndvsu.org) or purchased from college on working days between 10 a.m. to 4.00 p.m. on payment of Rs. 1000/- for each instruments. Tender has to be submitted along with **or Demand Draft of Rs.1,000/-** in favour of the **Dean, College of Veterinary Science & Animal Husbandry, Mhow**. The tender cost of Rs. 1000/- is payable for **each instrument separately**. The tender without tender fees will not be valid and hence it will be rejected.
  
2. Tenders must be submitted in sealed envelope addressed to the undersigned in person **Registered Post/courier** and with acknowledgement due so as to reach on or before **19.02.2018 up to 05:00 P.M.** **It is advisable to send the tender envelope for each instrument by registered post separately. The tender after due date and time will not be accepted.** The envelope cover shall bear **the address of the tenders along with name and number of the item/instrument as per the tenderer document.** The last date for purchase of tender in cash is **15.02.2018. The final approval of tender shall be done by university central purchase committee, at a date to be notified later.**
  
3. The tender should by submitted in **two bid system**. The envelope **A** will contain technical bid and envelope **B** will contain the financial/price bid.
  
4. The technical bid of the tender will be opened in presence of the tenderers or their authorized representatives at **11:00AM on 20.02.2018**. In case any tenderer fails to present himself on the appointed time, the competent authority shall have the right to open the tender in their absence.  
**A. Document to be kept in envelope A (Technical Bid)**
  - Earnest money of the instrument as mention in appendix A.
  - GST registration certificate along with GST/CGST No.
  - Firm/tenderer copy of PAN issued by Income tax department.
  - List of installation of instrument in reputed national or international institute/university alongwith 2 to 3 satisfactory report of user from India.
  - Firm/tenderer should provide the detail of Income Tax assessment for last three years
  - Firm/tendered should furnish the copy of supply order of Rs. 10 lakhs during last 3 years or copy of supply order of Rs. 5 lakhs in financial year 2016-2017.
  - Firm/tendered should provide the self attested no-relationship certificate.
  - The copy of all the required international certifications must be enclosed.
  - The firm/tendered should submit the compliance format (Appendix C).

**B. The envelope B will contain only price of the instrument in enclosed format (Appendix B). The price should be written on letter head of company, sealed and signed by authorized person of the firm/tenderer. The envelope B open only if firm/tenderer will qualified technical bid.**

**C. Envelope 'C' will contain both envelope A + B. The S.No. of all the instrument quoted by the firm must be written on C envelope.**

5. The list of technically successful tenderer of each item will be communicated on or before 26.02.2018.
6. **The price bid will be opened on 28.02.2018 in presence of the successful firm/tenderer for each item.**
7. The tender shall not be acceptable without the receipt of earnest money/security deposit in the shape of **Fixed Deposit Receipt (FDR) mentioned along with the name of instruments** issued by any Nationalized Bank, in favour of **"Dean, College of Veterinary Science & Animal Husbandry, Mhow,"** which will be refunded after warranty period, **EMD shall not be accepted in any other form.**
8. The amount of earnest money/ security shall be refunded in full if tender is rejected.
9. The above security is taken for due performance of the contract as per provisions of the conditions mentioned in tender form. The same will be refunded on the expiry of the contract on successful completion of the supply with reference to specifications with proper supply and adjustment of any loss by way of purchasing the goods from other party / parties in case of dishonoring of the indent for supply and deliberate non supply.
10. Specifications are attached as **APPENDIX "A"** along with Terms & Conditions.
11. Quantity of the items to be purchased will depend on the requirement and availability of funds, Their shall be no obligation to place order for any of the item.
12. **Reputed Manufacturers and their authorized dealers should only submit the tenders** In case authorized dealers is submitting the tender, certificate of authorized dealership from the manufacturer must be enclosed along with the tender documents. **Sub-dealers authorized by authorized dealer are not eligible for participation.**
13. Tenders shall not be accepted without GST registration number of the firm.
14. The competent authority, **"Dean, College of Veterinary Science & Animal Husbandry, Mhow"** reserves the right of accepting the tender in part or whole or distribution of the supply between one or more tenderer.
15. The submission of a tender by a tenderer implies that he has read the terms and conditions of tender/contract and is fully aware of the scope and specification of the supplies to be made. He also must satisfy himself regarding the suitability and availability of the materials as per the tender document.
16. **The GST/CGST wherever applicable for a particular instrument, has to be shown separately which will be deducted by the institute and certificate regarding this will be issued by the institute.** All other taxes, if any, has to be paid by the supplier himself.

17. **The rates quoted shall be F.O.R. delivery at College of Vety. Sci. & A.H., Mhow for Appendix A.** The rates quoted should be inclusive of packing and forwarding charges loading/unloading/ handling charges, freight, full risk coverage, insurance, etc.
18. All losses during transit i.e. breakage and shortage etc. will have to be supplied by the tenderer at his own Cost within a period of **15 days** from the date of receipt of notices in this regard.
19. The undersigned does not bind himself to accept only the lowest rates, and decision of the purchase committee shall be final and non-challengeable at any case. Normally lowest tender will be considered. However, in special cases, in case of minor difference in cost the instrument having addition special feature if quoted by company may be recommended for purchase.
20. The tenderer shall not submit whole or any portion of the contract to any party or parties, else the competent authority is free to cancel the contract and forfeit the security deposit.
21. The tenderer shall arrange to supply the commodities within **2-4 week** (For imported items within 06-08 weeks) from the date of receipt of the supply order from the constituent units of the university, unless otherwise indicated in the supply order. In case the tenderer fails to execute the orders of supply within the stipulated period, the competent authority (**Dean, College of Veterinary Science & Animal Husbandry, Mhow**) will forfeit the security amount and will be free to make alternate arrangement for purchase of goods.
22. **Although the NDVSU, Jabalpur does not have the DSIR certification for custom exemption, but have importer exporter code. Thus, if possible, especially for costly equipments (> 5.00lakhs) the imported instruments may be imported directly in favour of unit of the University, so that GST/CGST will not be applicable.**
23. Single rate should be offered for the entire tender period i.e. up to **31.03.2018**. Rates quoted for less than this period are liable to be rejected.
24. The agreement bond should be executed mentioning that the **company will abide by the tender terms and condition on a non-judicial stamp paper worth Rs.100/-** with in two week by the successful tenderer. In the event of failure on the part of any successful tenderer to execute the agreement bond on non judicial stamp paper within the prescribed time limit, "**Dean, College of Veterinary Science & Animal Husbandry, Mhow**" will be competent to forfeit the security deposit of such successful tenderer.
25. **International certifications (CE/EU/ISO etc.) as indicated for each item separately must be submitted along with the technical specification in envelope A.**
26. Tenders once submitted the tenderer cannot withdraw the tender.
27. Tenderer has to write clearly the name, address, E-mail and telephone/mobile

number of authorized person of the firm.

- 28. Please quote the rates in Indian Currency only.**
- 29.** In case of any dispute arising out of this contract, the arbitration power rests with the Vice-Chancellor, NDVSU, Jabalpur whose decision will be final.

**DEAN  
College of Vety. Sci. & A.H.,  
Mhow**

## **APPENDIX A**

### **(Item No. 1.) Digital Radiography System (DR) with Flat Panel Detector (40KW) (EMD Rs. 1,50,000/-)**

Unit should be specifically designed for all aspects of general X-Ray imaging and operating at a High Frequency of 40KHz for highly efficient X-ray production and preeminent Image Quality. The Integrated Design of the machine should allow the operator to acquire X-ray Images very conveniently.

#### **A. HIGH FREQUENCY GENERATOR:**

Generator should be of latest technology with high frequency 40KHz or more X-Ray generator. Constant Power output of 40KW.

KV range should be 40 to 125KV in 1KV/step.

mA output: 500mA or more

mAs range should be 1 to 350mAs or more.

#### **B. X-RAY TUBE:**

i.) A Dual focus Rotating anode X-ray tube should be provided.

ii.) Focal spot size of 1.0mm (small focus) x 2.0mm (large focus).

iii.) Collimator having halogen lamp / bright light source and auto shut provision of the light.

iv.) HV Cable: 1 Pair of H.V. Cable of required length.

#### **C. STAND:**

3D ceiling suspended tube stand should have actuator based noiseless and swift up/down movement of the tube head.

Mechanical Specifications:

Longitudinal movement: 2000mm or more

Transverse movement: 1500mm or more

Motorized Vertical (up/down) movement: 1000mm or more

Tube head Rotation (along with Column axis):  $\pm 180$ degree.

Facility of SID display should be available.

#### **D. VERTICAL BUCKY STAND:**

Counterbalanced, Floor mounted vertical bucky stand with adjustable height facility for lung and skeleton x-ray examinations, has user-friendly design and handling should be provided. It should have inbuilt FPD (FLAT PANEL DETECTOR) of size 43 x 43cm.

#### **E. FLAT PANEL DETECTOR:**

##### **Specifications:**

The detector should be flat panel type with A-Si (amorphous silicon) and CSi as scintillator.

Size of detector must be 43cm x 43cm or bigger.

Active Image matrix 3K x 3K.

Image depth should be 14bit.

Pixel size should be 150um or less (Smaller pixel size is preferred)

Detector resolution should be more than 3.3 lp/mm.

DQE (Detector Quantum Efficiency) should be more than 65%.

## **F. OPERATING STATION/WORK STATION:**

### **a. X-RAY/IMAGE CONTROL CONSOLE**

**Fully integrated system with following features:**

- Digital Display of KV & mAs.
- KV & mAs increase and decrease control on G.U.I (Graphical user interface).
- Ready and X-Ray ON indication on G.U.I (Graphical user interface).
- Self diagnostic Program which can diagnose and display faults such as Earth fault error, KV error, Filament error & Tube's Thermal Overload.
- An Inbuilt overload protection device.
- Anatomical Programming Radiography (i.e. APR): Preprogrammed parameters of Anatomy which helps the user to select exposure parameters based on body part, examination view and size of the animal. Since it is a computer based system (full system integration) so any number of Organ programming combinations is possible. User can define his own Organ parameters and can edit the existing parameters to his satisfaction and comfort level.
- APR programs: More than 1000 programs. (Expandable as per user's requirement).

A dual action hand Switch with Retractable cord for Radiation Protection of Operator.

### **b. IMAGE ACQUISITION SOFTWARE**

#### **SOFTWARE CHARACTERISTICS: (With Veterinary Software)**

Software provides complete control of all image capture functions within the examination room. It enhances the entire workflow by delivering diagnostic images instantly. It also allows user to transfer X-Ray images electronically to remote workstations, image archives, and printers, also has an excellent performance on image quality control such as:

#### **MAIN FEATURES**

- Digital image processing technology
- Preview image in less than 5 seconds.
- *Exam Specific Algorithms image processing for consistent image quality of all body parts.*
- Preset image processing tools for different anatomy
- Image cropping
- Image mirror, rotate.
- Image annotation
- Add image accept/reject comments
- *Rejected images archival with provision of converting*

EXCELLENT  
MAINTAINABILITY

- *them to Accepted images.*
- *Separate log for Rejected, Accepted and Printed images.*
- True size for printing.
- Hard disc capacity for image storage >3000 images.
- Inbuilt CD/DVD writer facility
- Remote online system diagnosis
- Remote online software upgrade
- Image quality control tools
- ***Easy and quick Offset and gain calibration with bad pixel removal algorithm.***

FULL DICOM 3.0  
COMPATIBILITY

- Get DICOM work list
- DICOM Print
- DICOM Store
- Support DICOM MPPS

**G. MONITOR:** 1 No. 21” *High Brightness Monochrome* LCD Medical display monitor should be provided.

**H. POWER SUPPLY REQUIREMENT:**

3 Phase, 440Volts AC 50Hz with line resist less than 0.4 Ohms. Line Regulation  $\pm 10\%$ .

**I. Other Requirements:**

- The company should be ISO-9001: 2008, ISO-13485: 2012 certified.
- The unit should be approved by AERB. Installation will be done as per AERB Norms by the Supplier/Firm.
- The company should have proven track record in Govt. sector.
- The unit should be European CE from notified body should be provided.
- Computer with printer and accessories
- Minimum 3 year annual maintenance contract is required
- 10,000 Films
- 2 Years warranty
- Installation and electrical fitting/Cable etc. will be done by the supplier/firm.
- Demonstration and training will be given by the supplier/firm to the X-Ray technician and staff.

**(Item No. 2) Portable Diagnostic Veterinary Ultrasound Scanner (EMD- Rs. 30,000/-)**

- Should be exclusive veterinary scanner meant for reproductive diagnostic scanning in bovine equine, ovine, caprine and swine.
- Should be portable light weight (approx 5.00 kg) for easy handling and transport to the cattle shed for scanning.
- Should have inbuilt in software for veterinary reproductive parameters, follicular measurement, back fat thickness etc with the facility of up gradation of the software.



- Should be equipped with extractable rechargeable batteries with back up of at 5 – 6 hours
- Should have minimum 32 GB memory disc.
- Should be supplied with sturdy shock proof ,corrosion free carrying case made of metal alloy
- Should have TFT LCD / LED monitor of approximate 5.5 “ – 7” minimum 30 -40 cm image display
- Should be capable of storing images in multiply formats like JPEG, bitmap, raw data format
- Should have facility recording, storing and exporting video clips
- Should have cine loop storage and retrieval facility
- Should have freeze button, cine review facility frame by frame measurements and calculation facilities on display images.
- Should have minimum 5 selectable steps for image resolution, automatic focus adjustment of frequency based on depth of tissue
- Should have facility for image cine clip display on inbuilt machine screen and through multidimensional view glass
- The connection plugs and screen should be waterproof
- Should have touch screen operation for brightness adjustment focal zone adjustment, setting of date, time etc automatic probe, identifications
- Should have minimum 6 depth levels, 5 focus levels, minimum 8 dynamic levels
- Should have individual user protocol with facility of export, storage, retrieval and editing, review of images, clips and files
- The data should be easily exported through USB or Bluetooth
- It should have facility of computer connectivity with video out options for external display and printing
- Should have connectivity to a external thermal printer
- Should have internal memory capable of storage 800 – 1000 ultrasound images clips

## **PROBES**

- The probe should be waterproof, multi frequency and pin less. There should be facility to interchange the probe without switching of the machine. The maximum boot time for immediate switching of machine from one mode to other viz. B mode, B/ B mode and M mode.
- The following probes should be supplied with the machine:
  - Linear array rectal probe with frequency range of 5-10 MHz for B mode ( central frequency of 7.5 MHz)
  - Wide band convex probe with frequency range of 2.5- 5 MHz for B mode (central frequency of 3.5 MHz for abdominal and gynaecological scanning of small animal.

## Appendix B

Format for Price Bid (Submitted on Letter head of firm/tenderer)

Name of Instrument:-

Make of Instrument:-

Model of Instrument:-

Price of Instrument including of all taxes duties and units (FOR Mhow)	X
GST/CGST( 1 year)	Y
Total	X+Y

Seal & Signed

## Appendix C

Compliance format (Submitted on Letter head of firm/tenderer)

S.No.	Required specifications of the instrument as per tender	Specifications as per the make and model of the instrument quoted by the firm
1.		
2.		
3.		

Seal & Signed