

**OFFICE OF THE OFFICER I/C, STORES PURCHASE
G. B. PANT UNIVERSITY OF AGR. & TECH., PANTNAGAR-263145
(U.S. NAGAR) UTTARAKHAND**

No. SPO/Tender(1) /2018-19/483

Dated: 11 May, 2018

TENDER NOTICE

Sealed tenders are invited in two bid system from the manufacturers and/or authorized Indian Agents/Subsidiary of foreign manufacturers (in case of imported items) for supply of **Computerized Radiographic (X-Ray) Unit**.

Tender document and other detailed information are available on University web site **www.gbpuat.ac.in** and can be downloaded. Last date for submission of tender document is **04.06.2018 up to 5:00 PM**. The technical bid will be opened on **05.06.2018 at 03:00 PM** onwards in the office of undersigned.

Tender Document cost: ` 2,000.00+12% GST = ` 2,240.00 Each

Phone No. 05944-234260, Tele-Fax-05944-234816, e-mail:spo.gbpuat@gmail.com

Officer I/C, Stores Purchase

**कार्यालय प्रभारी अधिकारी, भण्डार क्रय
गो0 ब0 पन्त कृषि एवं प्रौद्योगिक विश्वविद्यालय, पन्तनगर**

पत्रांक: एसपीओ/निविदा(1)/2018-19/483

दिनांक 11 मई, 2018

निविदा सूचना

निर्माताओं/अधिकृत विक्रेताओं/वितरकों/आयतित सामान के लिए अनुषंगी फर्मों से दोहरी निविदा प्रणाली के अन्तर्गत **कम्प्यूटराइज्ड रेडियोग्राफिक (एक्स रे) युनिट** की अधिप्राप्ति के लिए मुहरबन्द निविदाएं आमंत्रित की जाती हैं।

निविदा प्रपत्र और तत्सम्बन्धी विस्तृत विवरण विश्वविद्यालय की वेबसाईट **www.gbpuat.ac.in** पर उपलब्ध है, जिसे देखा एवं डाउनलोड किया जा सकता है। निविदा प्रपत्र की संपठनीय प्रति (हार्ड कापी) अधोहस्ताक्षरी कार्यालय में जमा करने की अन्तिम तिथि **04.06.2018 सांय 5.00** बजे तक है तथा तकनीकी निविदाएं दिनांक **05.06.2017 को अपराह्न 03:00** बजे अधोहस्ताक्षरी कार्यालय में खोली जायेंगी।

निविदा प्रपत्र शुल्क:- रू0 2,000.00+ 12% वस्तु एवं सेवा कर = रू0 2,240.00 प्रति निविदा।

फोन नं0 05944-234260, फैक्स नं0 05944-234816, ई-मेल **spo.gbpuat@gmail.com**

प्रभारी अधिकारी, भण्डार क्रय

OFFICE OF THE OFFICER I/C, STORES PURCHASE
G. B. PANT UNIVERSITY OF AGRICULTURE & TECHNOLOGY, PANTNAGAR
UDHAM SINGH NAGAR (UTTARAKHAND)

TENDER FOR THE SUPPLY OF
(Name of item/s)

Last date of submission: 04.06.2018 at 5:00 PM Opening date: 05.06.2018 at 03:00 PM

“PLEASE CAREFULLY GO THROUGH THIS DOCUMENT AND ENSURE COMPLIANCE IN TOTALITY. NON-COMPLIANCE OF ANY ONE OF THE CONDITIONS OR CANVASSING MAY MAKE YOUR OFFER INVALID”

Part (A): Technical Bid

“Please furnish the following information in this part so as to enable the panel to decide about the qualification in the Technical Bid. Necessary valid documents/certificates from the appropriate authority must be attached sequentially in support of statement at serial ‘4’ to ‘16’ below.

For qualification criteria, the tenderers are required to have supplied a specified quantity or for specified amount of supplies made during the last three financial years and the bidders have to furnish an authentic certificate from their clients in support of satisfactory performance.

Tenderer’s reference No. _____ Date _____

1. Application for the supply of _____

2. Name of the tenderer: _____

Address _____

3. Contact: (A) Telephone No. _____ (B) Mobile _____

(C) Fax No. . _____ (D) e-mail _____

4. Earnest Money (must be attached with technical bid: **To be filled in separate prescribed proforma in separate envelope* see page no. 12**
in a sealed envelope)

(a) FDR/TDR No. & date only _____
(do not mention amount)

5. Status of the applicant
(Whether manufacturer / authorized Indian Agent/Subsidiary of a foreign manufacturer as per tender notice. (A specified and valid certificate must be submitted) _____

6. Manufacturing license No. & date _____

7. GST/ Sales tax registration No. & date _____

8. Income tax P.A.N. No. _____

9. ISO/ISI award letter No.
(In case it is awarded to the firm) _____

10. Turnover : (last 3 year) 2014 – 2015 Rs. _____
2015 – 2016 Rs. _____
2016 – 2017 Rs. _____

(attach balance sheet/audited CA certified)

11. Please indicate if you are on Rate Contract with GeM, if so please provide the reference of the same along with validity. _____

12. (a) Country of origin of equipment, if imported _____
(b) Indigenous _____

13. Please certify that you are not blacklisted by any Department of Central/State Govt. or Pantnagar University or any Public Institution (attach Notarized affidavit worth Rs.100.00) an affidavit on Non-Judicial stamp paper is to be attached duly notarized _____

14. Details of major clients (to be enclosed) **for the last three years only.** _____

15. Detail of single largest order complied during last year (**only one order has to be given**)
(a) Name of client & address _____
(b) Amount _____

16. Quantum of supplies to G. B. Pant University during last year. _____

17. Indicate the after sales service available (Especially in UTTARAKHAND)
(a) No. of Engineers and other technical staff _____
(b) No. of Venders _____
(c) No. of Service stations and their locations _____

18. Please enclose Schedule of Quantity attached with the tender for quoting technical specifications of the product (with out rates) for which tender rates are submitted.

PLEASE DO ATTACH THE FOLLOWING DOCUMENTS IN “INDEX MANNER”:-

1. Earnest Money (FDR, TDR, DD only).
2. Manufacturing license from appropriate authority.
3. Authority letter from the manufacturer in case of dealers/distributor.
4. Instructions to the tenderer must be attached duly signed & stamped by the tenderer.
5. Sales tax/GST registration certificate.
6. Latest sales tax/GST return.
7. DGS&D/ GeM rate contract copy, if any.
8. Year- wise turn over for the last three-years supported by pertinent portion of balance sheet duly authenticated by C.A./ Competent authority or Certificate of CA for the year wise turn over of desired years.
9. Terms & conditions duly signed by the tenderer.
10. Any other literature or information the applicant desires to furnish.
11. Notarized affidavit regarding non-blacklisting.

NOTE:

Before sending/submitting the tender, the tenderer should read carefully, the attached terms & conditions, special conditions, instructions to the tenderer and fill all the columns of technical and financial bid. *EXTRA DOCUMENTS OTHER THAN THE ASKED FOR SHOULD NOT BE ATTACHED.*

*Signature of the applicant
With seal*

OFFICE OF THE OFFICER I/C, STORES PURCHASE
G. B. PANT UNIVERSITY OF AGRIC. & TECH. PANTNAGAR- 263145
(U.S.NAGAR) UTTARAKHAND

GENERAL TERMS & CONDITIONS

(Jurisdiction- Udham Singh Nagar)

1. Sealed tenders are invited by the Stores Purchase Officer G.B. Pant University of Agri. & Tech., Pantnagar (Udham Singh Nagar) for supply of
2. Technical Bid (consisting of specifications & EMD only) & Financial Bid will be received in two separate sealed envelopes. Both the envelopes will then be put into one big envelope & sealed properly super scribing "Technical & Financial Bids" for the supply of due on date
3. (a) The envelope containing Technical Bid should be superscribed "Technical Bid for the supply of [Name of stores]"
(b) The envelope containing Financial Bid should be super scribed "Financial Bid for the supply of [Name of stores]"
4. Rates quoted should be F.O.R. destination. The rates must include packing forwarding and transit insurance charges. The same should be insured against theft, loss or breakage during transit by the supplier before dispatch is made. The responsibility in this respect will be of the supplying firm and not of the University.
5. Supply of the goods is acceptable on bill basis only. **R.R./documents through bank are not acceptable.**
6. Payment shall be made within 30 days from the date of receipt of goods in proper/ satisfactory/ working conditions.
7. The tenderer should clearly indicate if they agree for Rupee term payment or payment by Sight draft or L/C (to be established on the basis of 60:40 ratio) and if so give a complete detail thereof. Special conditions & codal formalities for import of stores shall be applicable.
8. Tender documents must be submitted consisting of notice inviting tender, tender form (technical and/or financial), general terms & conditions of supply, **interactions** to the tenderer, special conditions if any, schedule of quantities duly filled, completed & signed by the tenderer.
9. Tenders should be addressed to the "**Officer In-charge, Stores Purchase,**" **G. B. Pant University** of Agri. & Tech., Pantnagar- 263 145 (U.S. Nagar) Uttarakhand, duly sealed properly.
10. Tenders will be received by the undersigned up to **5.00 P.M** on and Technical Bid will be opened on **at 03:00 P.M.**

11. *The tender should be submitted along with a demand draft or fixed deposit receipt or Bankers cheque in favour of **Comptroller, G.B. Pant University of Agri. & Tech., Pantnagar payable at SBI/PNB/UCO/UNION Bank, Pantnagar only..** The given percentage will depend on the total cost of the goods/items as follows:-
 - (i) **Upto Rs. 25 lakh – 3%**
 - (ii) **Above Rs. 25 lakh – 2% (minimum Rs. 75,000/-) shall be charged**Tender without proper earnest money shall not be considered. **No Cheque shall be accepted.** Earnest Money deposited earlier, if any, shall not be considered. The FDR should be drawn from the account of tendering firm.
12. In terms of point (vi) to rule 225 of GFR (2017), Contract document, where necessary, should be executed within 21 days of the issue of letter of acceptance. Non fulfillment of this condition of executing a contract by the Contractor or Supplier would constitute sufficient ground for annulment of the award and forfeiture of Earnest Money Deposit.
13. In case of equipments, the successful bidder should furnish 5% value of purchase order as performance security in the name of **Comptroller, G.B. Pant University of Agri. & Tech., Pantnagar**, for the performance of the equipment/ stores during the whole period of **36 Months Warranty/Guarantee. (Only on site warranty will be accepted).**
14. The purchaser has the right to forfeit performance security in case of any breach of contract committed by the supplier.
15. The supplier will have to attach a certificate to the effect that the material to be supplied will be of the specifications conforming to standard of the item specified in the attached schedule.
16. Supply of ordered material should be/ required to be completed within stipulated date/ time from the date of issue of firm order failing which the University reserves the right to forfeit the earnest money and cancel the order. Part supply shall not be accepted **normally however in genuine cases**, permission may be granted.
17. The supplier should quote clearly in figure and words the rate and amount tendered by him. The amount of each item should be worked out & requisite totals given including all charges F.O.R. destination.
18. Trade/Sales tax/GST or any other tax or other charges on the material, which has not been mentioned while quoting their rates, shall not be paid by the University under any circumstances.
19. The terms & conditions given by the supplier will not be binding on us. Conditional tenders shall be rejected at the sole discretion of the competent authority of the university.
20. The manufacturer should mention their address of manufacturing unit so that the site may be inspected, if required.
21. In case of supply order being placed on you:
“As time is the essence of this order, the date of delivery should be strictly adhered to otherwise the University reserves the right not to accept delivery in part or full and claim the liquidated damages 1% per week subject to a maximum of 10% of total value of the supply order.”
22. A tenderer shall not submit more than one tender for the same set of goods.
23. The tenderer shall at all times indemnify the purchaser, at no cost to the purchaser, against all third party claims of infringement of patent, trademark or industrial design rights arising from the use of the goods or any part thereof, with respect to the goods quoted by the supplier in its offer.

24. The tender so submitted shall be governed by the laws of India and be interpreted in accordance with such laws.
25. Any dispute arising in process of the tender, the matter shall be referred to the sole arbitrator who in such cases shall be the Vice-Chancellor, G.B. Pant Univ. of Agri. & Tech., Pantnagar, and whose verdict shall be binding on both the parties.
26. The tenderers may be called for technical discussions by the Central Purchase Committee duly constituted or nominated by the Competent Authority of this University.
27. The tenderer must supply a three-dimensional drawing of the instrument, which they proposed to supply along with the relevant **literature in original**.
28. The acceptance of a tender will rest with the University who does not bind itself to accept the lowest tender and reserves itself the authority to reject or partially accept, any or all the tenders received without assigning any reason.
29. The University reserves the right to place order for the scheduled quantity and/or part thereof.
31. Tenders are likely to be rejected in case the same are not conforming to the laid down terms and conditions.
32. The tenders may be dropped in the Tender Box kept in the office of Stores Purchase Officer by due date & time. The tender may also be sent/submitted through post/courier. The tenders received after due date & time are liable for rejection. The University shall not be responsible for receipt of tenders after due date, due to postal delays or any other reason, whatsoever.
33. The validity of rates shall be 180 days from the date of opening of technical bid/offer.
34. The supplier should invariably incorporate guarantee/warranty clauses in his offer wherever applicable. While incorporating G/W clause, nature & duration should be specifically mentioned.
35. If during the currency of the contract, the price(s) of the contracted stores falls, the supplier shall have a binding to charge the prevailing lower rates against the higher contract price. However, the purchaser is not liable to compensate the supplier any hike in the contract price during the contact period.
36. Free replacement will be made against defective/damaged supplies by the firm/supplier at their own cost & risk at user's site.
37. Supplies will be strictly as per brand/specifications as specified in the rate contract. Container and product must bear the brand name, lot no., batch no., date of manufacturing and date of expiry, etc., as the case may be. Substandard supplies shall be rejected out rightly and the supplier shall be held responsible to make good the loss so incurred and that the University shall take necessary action against the firm/supplier, as deemed fit.
38. The consignment shall be booked always in favour of consignee only and as per instructions mentioned in the purchase order.
39. Bulky tenders which can not be dropped in the tender box will be accepted by the head of the office or his authorized representative and receipt issued.
40. For all items, the financial bid shall be opened only for those firms whose technical bids recommended by the indenter/technical committee and found to be as per specifications, terms & conditions of the tender asked for (in case of two bid system only).

41. In case the due date is declared a holiday, the tender shall be opened on next working day at the same time.
42. The tenderer must ensure that all the entries are made by one person, using same ink and without any cutting and over writing. If there is any cutting, it should be countersigned.

I have read the above terms & conditions and the instructions attached herewith and understood them carefully and agree to abide by the same.

**Signature of Tenderer
with seal**

43. Certified that we have downloaded the tender documents from University Web Site. The tender fee of ` **2,000.00+12% GST= ` 2,240.00** is enclosed in shape of Bank Draft No..... date..... drawn in favour of “**Officer In-charge, Stores Purchase, Pantnagar**” payable at **SBI/PNB/UCO/UNION Bank, Pantnagar only.**

**Signature of tenderer
With seal**

OFFICE OF THE OFFICER I/C, STORES PURCHASE
G. B. PANT UNIVERSITY OF AGRIC. & TECH., PANTNAGAR
(U.S. NAGAR) 263145, UTTARAKHAND

SPECIAL CONDITIONS FOR IMPORTED EQUIPMENTS

(Jurisdiction- U. S. Nagar)

THE TENDERERS ARE REQUIRED TO GO THROUGH CAREFULLY, THE FOLLOWING SPECIAL CONDITIONS OF SUPPLY ON IMPORT OF EQUIPMENT BEFORE SUBMITTING THEIR OFFER.

1. The Indian Agent of foreign manufacturer must be registered with DGS&D or concerned department of Govt. of India.
2. The university is exempted from payment of custom /excise duty. However, Concessional Custom Duty levied by G.O.I. is paid on import of equipments.
3. The validity of Proforma invoice should be at least 180 days (also applicable for indigenous equipments) from the date of opening of tender.
4. The foreign suppliers shall indicate the Agency commission separately on the Proforma Invoice Form 237 of DGS&D having details of disclosure of Agency commission and it should be invariably attached with the Proforma Invoice.
5. The payment of agency commission to Indian Agent of foreign manufacture is payable in Indian currency as per standing instructions of Ministry of Finance G.O. No.F-23(I)-E II(A)/89 dt. 31.01.89
6. The import of equipment is acceptable on FOB/CIF value.
7. The import may be allowed on CIF value in exceptional conditions at the discretion of University. In that case the charges on Freight and insurance should be shown separately.
8. The Freight & Insurance charges should not exceed 5% of the FOB value in any case.
9. If the supply is made on CIF value the Insurance shall be from ex-works to destination at GBPUA&T, Pantnagar (Distt. U.S. Nagar) Uttarakhand.
10. Shipment should be made strictly through university's authorized Freight forwarder as will be mentioned in the purchase order/Letter of Credit.
11. The University does not allow transshipment or/and part shipment.
12. In case of replacement/ short supplies, all the charges like Freight Insurance, Custom Duty and clearance shall be borne by the supplier themselves.
13. No other charges beyond the value of Proforma Invoice shall be paid by University in any case.
14. Prices must be quoted strictly in Foreign Currency on CIF & FOB basis and submitted on original foreign Manufacturer's/Supplier's Proforma Invoice/quotation. Prices quoted in Indian Currency for foreign products are to be rejected.

Mode of Payment

15. In case of import of goods, payment shall be preferred through sight draft. A photo copy of D/D shall be dispatched along with Purchase order.
16. Payment may also be made through Letter of Credit. In this case Irrevocable Letter of Credit shall be opened for 100% value of FOB value, however 60% cost of FOB value excluding agency commission shall be made against shipment of document negotiated through Bank and balance 40% shall be released after satisfactory installation report of the equipment from the indenter. Following sub condition shall be applicable in case of payment through L/C.
- (a) All Bank charges inside and outside India shall be on beneficiary's account i.e. tenderer shall have to bear such charges.
 - (b) All amendment charges, in the L/C if any shall be on beneficiary's account.
 - (c) Agency commission will be paid by the indenter in Indian currency at prevalent exchange value after delivery and satisfactory installation of the equipment. The bill of the same will be submitted by the Indian Agent accordingly.

I/We agree to abide by the terms and conditions.

**Signature of Tenderer
With Seal**

**OFFICE OF THE OFFICER I/C, STORES PURCHASE
G.B.PANT UNIVERSITY OF AGRICULTURE & TECHNOLOGY, PANTNAGAR
UDHAM SINGH NAGAR (UTTARAKHAND)**

INSTRUCTIONS TO THE TENDERERS

1. Tender should be addressed to the Stores Purchase Officer G.B. Pant University of Agri. & Tech., Pantnagar, Distt Udham Singh Nagar, Pin – 263 145, Uttarakhand and be sent in a properly sealed cover. The tender should be sent in an envelope superscribed as “**Tender for the supply of Computerized Radiographic (X-Ray) Unit, Technical bid & Financial bid both in two separate envelops due onat.....p.m.**”
2. The stores offered should be strictly according to the brand / specifications as mentioned in the tender documents.
3. Earnest Money as per conditions stipulated shall be deposited along with the tender / technical bid in the shape of an FDR/TDR, duly pledged in favour of the **COMPTROLLER, G.B.P.U.A.&T., PANTNAGAR**. Tender without earnest money will not be accepted. In case tender is not accepted for award of contract, the Earnest Money shall be refunded after its finalization. The FDR should be drawn from the account of the tendering firm otherwise tender shall be rejected. FDR/TDR issued in personal name shall not be accepted.
4. Tenders shall be received in the office of the **Officer In-Charge, Stores Purchase, G.B. Pant University of Agri. & Tech., Pantnagar (Distt Udham Singh Nagar, Pin – 263 145)** Uttarakhand & opened as per schedule given in the notice in presence of the tenderers or their representative who may like to be present at the time of opening of the same.
5. The tenders may be dropped in the Tender Box kept in the office of the undersigned and the same may also be sent by post/courier but the University will not be responsible for any postal delay or otherwise. Tenders received after the stipulated date & time are liable to be rejected.
6. Tender for each Equipment/Items of material as specified in the notice inviting tender/press notification is required to be submitted separately.
7. Firms black-listed by any of the department of Central/State Govt. or Pantnagar University need not to participate in tender.
8. Interim enquiries or subsequent offers if any, will not be entertained.
9. The University is exempted from the GST/Excise Duty and Custom Duty (concessional) for certain stores, the prices so mentioned in the tender, GST/Excise/Custom Duty component should be indicated clearly.
10. Tenders, which do not fulfill all or any of the above conditions or found incomplete in all respect are liable to be rejected.
11. The Earnest Money shall be released only after satisfactory installation of Equipment/Items in all respect and as per the terms & conditions of the tender.
12. The acceptance of tenders rests with the Vice-Chancellor of the University who does not bind himself to accept the lowest tender & reserves the right to reject or partially accept any or all the tenders without assigning any reason whatsoever thereof .
13. A certificate of the Manufacturer/Indian Agent specifying their status may be submitted along with the tender without which the tenders are liable to be rejected.

14. The maximum rate of discount on the manufacturer's price list offered by the tenderer & the rates tendered may be indicated clearly in figures and words.
15. No overwriting or cutting on the prices is allowed; if so, certificate of the manufacturer to this effect may be attached with the tender.

I have read all instructions carefully and promise to abide by them during the period of contract.

Signature of tenderer
With seal

Date:-

**OFFICE OF THE OFFICER I/C, STORES PURCHASE
G.B.PANT UNIVERSITY OF AGRICULTURE & TECHNOLOGY, PANTNAGAR
UDHAM SINGH NAGAR (UTTARAKHAND)**

(*EARNEST MONEY)

(TO BE SUBMITTED IN SEPARATE ENVELOPE WITH TECHNICAL BID)

1. Amount: (In Figure): Rs.....

(In Words): Rs.....

2. Demand draft/F.D.R/TDR/Bankers cheque No:

dated.....

3. Name of Bank:.....

**Signature of Tenderer
With Seal & Full Address**

OFFICE OF THE OFFICER I/C, STORES PURCHASE
G. B. PANT UNIVERSITY OF AGRI.& TECH. PANTNAGAR- 263145
(U.S.NAGAR) UTTARAKHAND

TENDER FOR THE SUPPLY OF

“PLEASE CAREFULLY GO THROUGH THIS DOCUMENT AND ENSURE COMPLIANCE. THE NON-COMPLIANCE OF ANY ONE OF THE CONDITIONS MAY MAKE YOUR OFFER INVALID”

Part (B): Financial Bid
(To be kept in a separate sealed cover)

Tenderer's reference No. _____ Dated: _____

1. Application for the supply of _____

2. Name of the applicant: _____

Address _____

3. Telephone No. _____ Mobile _____

Fax No. _____

e-mail _____

4. Status of the applicant (Whether manufacturer/ dealers/distributors as per tender notice. (Certificate must be submitted). _____

5. Telephone No., Fax No., e-mail of foreign principals _____

Tel. Ph. _____

Fax No. _____

e-mail _____

6. Registration No. with DGS&D/GeM (in case, the authorized Indian agent of foreign manufacturers) _____

7. Country of origin of the equipment _____

Indigenous _____

8. Cost of equipment _____

(i) In Indian Rupee _____

(ii) In foreign currency _____

a. FOB value with currency _____

b. Insurance & freight charges _____

c. CIF value with currency _____

9. Mode of supply:

Direct by Tenderer

10. Validity of rates (period)
(Preferably at least 6 months)

11. Specify GST :
(A) Full GST

(B) Concessional GST

NOTE:

- (i) **Over writing in tender will not be accepted. Cutting if any should be properly signed by the tenderer.**
- (ii) **University is not bound to make any part payment if full supplies are not made at a time and make purchase on lowest quoted rates.**
- (iii) **The tenderer should enclose required certificates in the same order as mentioned above & serialize them accordingly, and fill-up all columns of the tender documents strictly.**
- (iv) **Before sending/submitting the application/tender, the applicant should read carefully the attached terms & conditions and instructions sheet.**

**Signature of the Tenderer (Applicant)
Name & Seal of the Firm**

Schedule of Quantity for Computerized Radiographic (X-Ray) Unit (Comprised of following Components)

S. No.	Description	Quantity	Make & Full Specifications of items	Rates F.O.R. Destination		Taxes if any	Remarks
				In words	In figures		
1A	<p><u>1000mA High Frequency X-Ray Machine with image intensifier system</u></p> <p><u>Specifications :</u> High frequency X-Ray machine suitable for radiography & fluoroscopy.</p> <p><u>X-RAY GENERATOR</u></p> <ul style="list-style-type: none"> • High Frequency X-Ray Generator having frequency of 40KHz or more should be provided. • Power output of generator should be of 80KW. • KV Range should be: <ul style="list-style-type: none"> • Radiographic KV range: 40 to 150KV in 1 KV/Step • Fluoroscopic KV range: 40 to 120KV in 1 KV Step. • mA output (Rad.): 1000mA • mA output (Flr.): up to 3mA • Exposure time (Rad.): 1ms to 2 sec • mAs output (Rad.): 1 to 200mAs <p><u>CONTROL</u></p> <p>A very compact, Soft Feather Touch Control Panel having following functions & indications should be provided. The panel can be supplied in Floor mount with Spill Proof design.</p> <p>Following features should be available on the control panel.</p> <ul style="list-style-type: none"> • Machine ON/OFF Switch. • Digital Display of KV & mAs. • KV & mAs increase and decrease switches. • Ready and X-Ray on switch with Indicators • Bucky Selection Switch. • Self diagnostic Programme with Indicators for Earth fault error, KV error, filament error & Tube's Thermal Overload. • Anatomical preprogrammed parameters of animal Anatomy should be available to select exposure parameters based on body part, examination view and size of the Small & Large size animal. A dual action hand switch with retractable cord should be provided for Radiation Protection of Operator. 	01 No.					

X-RAY TUBE

- Two Nos. Dual focus Rotating Anode X-Ray tube having focal spot 0.6 & 1.2 mm and should be thermally protected. One for over couch & 2nd for under couch operation.
- Anode heat storage capacity of tube should be more than 250KHU.
- Two Pair of 8 meter H.V. Cable.
- Two No. of collimator, one motorized for under couch operation and one manual for over couch operation.

HV TANK

A very compact H.V. Tank filled with high dielectric transformer oil should be provided. The H.V. Tank should contain H.V. transformer, Filament Transformers, H.V. Rectifiers & H.V. Cable receptacles.

TUBE STAND

- Floor to Ceiling Stand with Counter Balanced Tube Head (Rotatable \pm 180 Degree), 360 Degree Rotatable column; mounted on Floor Ceiling Rails for convenient movements should be provided.

TABLE

- Table bucky should be provided with motorized oscillating grid. The table should move from
 - 12 degree Trendlenburg position to vertical with Automatic stop at Horizontal, Vertical & Trendlenburg Position. Provision should be given to manually move the table in case of Power failure.
- Bucky consisting of grid of size 17 1/4" x 18 7/8" ratio 8:1, 85 Lines/inch.
- Spot Film Device (Semi Automatic) capable of doing all routine Spot Filming (4 on 1, 2 on 1, 1 on 1) for use with 8" x 10", 10" x 12", 14" x 14" cassettes should be provided. Grid Size 14" x 14", Ratio 6:1, 60 lines per inch.
- Table Accessories like Stray radiation lead rubber flap, Compression band, handgrips, Footrest & footstep should be provided.

VERTICAL BUCKY STAND

- Vertical Bucky Stand with oscillating Grid of Ratio 8:1, 85 lines/inch is provided.
- The Bucky moves up & down & is equipped with a stainless steel cassette tray.
- The stand is floor-mounted type & can accommodate cassettes up to 14" X 17". The Bucky is tilted in 6 steps of 15 degree Angle each for various Radiographs.
- VBS should have provision for without grid exposure

IITV SYSTEM

- 9" triple field Image Intensifier should be provided.

- 9” I. I should be mounted directly on SFD with Motorized Up/Down movement.
 - High Resolution Compact CCD Camera should be provided. Pixels of camera should be 750 (H) X 500 (V) or more.
- 02 Nos.17” TFT/LCD Monitors along with a trolley.

DIP-IQ

Digital Image Processing - IQ System consists of the following functions:-

- 2 monitors system to view LIH, LIVE and Stored Images.
- Permanent Image Storage capacity of 10,000 Images.
- > 50 Temporary Image Storage for quick review.
- CD/DVD writer to Store Images on CD for giving it to Patients.
- Flicker free Images on a flat Screen.
- 32 Bit Image Storage processor for Excellent Resolution
- Image Sharpening (Real-time or Stored Images).
- Image Rotation (± 180).
- Image EMBOSS for three-dimensional relief presentation.
- Colorized Images.
- Dynamic contrast control (Gray Level Stretch with WW & WL).
- Negative Images (Gray Level Invert).
- Frames Averaging for smoothing of Images. (Real time) 256 frames.
- 32 Bit Image processor with VGA 800 x 600 resolutions.
- Digital Subtraction of Images.
- QUAD view (4 Images on Monitor).
- Cine Loop of 500 frames (Multiple Cine Loops can be stored permanently).
- Variably frame Rate up to 25 frames per second for cine Loop.
- Image orientation: Left/ Right – Top/ Bottom.
- Patient’s Name, Operator Name, Hospital Name, Date & Time display on Monitor.
- Images can be stored in folders of Individual patient’s Name.
- Quick exploration of Stored Images.
- ON Screen Help Mode.
- ON Screen Measurements – Length (X & Y) & Area.
- Area of Interest Marker.
- Contrast enhancement of Area of Interest.
- Facility for Image Printing (In case if printer is attached)
- Text annotations and provision of removal of all text from the image.
- Histogram of area of interest.
- Automatic capture and storage of cine loop with cine foot switch
- Offset and gain adjustments for improved image quality.
- Thumb nail use of complete study
- Frame by frame review.

	<ul style="list-style-type: none"> - Printing options in different formats (Frames of different loops can be printed on the same sheet, 1x1, 1x2, 1x4, 1x8 formats) - Frame rate selection - LAN connectivity. - DICOM Compatible. <p><u>POWER REQUIREMENT:</u> The unit should be operable on 400V AC, 50 HZ 3 Phase – Max. Allowable line Regulation $\pm 10\%$.</p> <p><u>Accessory :-</u> A servo voltage stabilizer of suitable rating for complete unit.</p> <p><u>OTHER REQUIREMENTS</u></p> <ul style="list-style-type: none"> • The company should be ISO-13485: 2003, ISO-13485: 2012 certified. • The unit should be approved by AERB. • The company should have a local Service center. • The company should have proven track record in Govt. sector. • The unit should be European CE Certified from notified body. 					
1B	<p><u>300mA or more HIGH FREQUENCY X-RAY MACHINE</u></p> <p><u>SPECIFICATIONS</u> High frequency X-Ray machine suitable for general radiography.</p> <p><u>X-RAY GENERATOR</u></p> <ul style="list-style-type: none"> • High Frequency X-Ray Generator having frequency of 50KHz or more should be provided. • Power output of generator should be 30KW. • Radiographic KV Range should be 40 to 125KV. • mA Range (Rad.): 350mA or more. • Exposure time (Rad.): 3ms to 3Sec. • mAs Range (Rad.): 1 to 200mAs. <p><u>CONTROL</u> A very compact, Soft feather Touch Control Panel having following functions & indications should be provided. The panel can be supplied in Floor mount with Spill Proof design.</p> <p>Following features should be available on the control panel.</p> <ul style="list-style-type: none"> • Machine ON/OFF Switch. • Digital Display of KV & mAs. • KV & mAs increase and decrease switches. • Ready and X-Ray on switch with Indicators • Bucky Selection Switch. • Self diagnostic Programme with Indicators for Earth fault error, KV error, filament error & Tube’s Thermal Overload. 					

Anatomical preprogrammed parameters of animal Anatomy should be available to select exposure parameters based on body part, examination view and size of the small & big animals. Anatomical Programming up to 200 programmes or more.

A dual action hand switch with retractable cord should be provided for Radiation Protection of Operator. There should be provision for a cordless Exposure switch also. There should be provision of auto shut off of Control if no key is pressed for 10Min.

X-RAY TUBE

- One No. Dual focus Rotating Anode X-Ray tube thermally protected.
- Anode heat storage capacity of tube should be more than 100KHU.
- One Pair of 8 meter H.V. Cable.
- One No. Collimator with auto shut off facility should be provided.

HV TANK

A very compact H.V. Tank filled with high dielectric transformer oil should be provided. The H.V. Tank should contain H.V. transformer, Filament Transformers, H.V. Rectifiers & H.V. Cable receptacles.

STAND

Counter Balanced 3D- Ceiling Suspended tube stand should be providing the user three-dimensional movements of the tube head covering a huge area.

- Stand should have Longitudinal, Transverse and vertical movement. It should have Tube Head Rotation along its axis.
- Movements of stand should be:
- Longitudinal movement : 3000mm or more.
- Transverse movement : 2000mm or more.
- Vertical up/down movement : 1500mm or more.
- Tube head Rotation along horizontal axis $\pm 90^\circ$.
- Tube head Rotation along vertical axis $\pm 180^\circ$.

TABLE

- Floatex table with 4-way movement of the table top i.e. along x axis and y axis is to be provided. Longitudinal movement of tabletop should be 800mm or more & transverse movement should be 250mm or more.
- The Table bucky should consist of motorized reciprocating Grid of size $17 \frac{1}{4}'' \times 18 \frac{7}{8}''$ & of Ratio 8:1, 85 lines/inch.
- The Bucky should be locked at any desired length position by an Electromagnetic lock.
- The tabletop should be made of low radiation absorption, waterproof material.
- Table Accessories like stainless steel cassette tray, Compression band is to be provided.

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2	<p><u>Computer Radiography System</u></p> <p><u>SPECIFICATIONS</u></p> <ul style="list-style-type: none"> • System should be capable of scanning a minimum of 45 plates/hour. • System should be capable of processing at least 3 sizes of cassettes. • System must be approved by FDA for General Radiology application. • System must be CE marked. • System must be desktop/floor stand solution • System must be Single slot scanner • Imaging plates must be flexible type • System must offer the capability to read plates 35x35 and 35x43 cm with pixel pitch less than 90 microns in high resolution and at low resolution less than 175 microns • Gray scale resolution for image acquisition before processing must be 16 bit • Gray scale resolution for post processed images must be at least 12 bit • Cassettes to be supplied, 14x17 – 2 Nos, 10x12 – 1 Nos, 08x10 – 1 Nos <p><u>Workstation & Software</u></p> <ul style="list-style-type: none"> • Monitor should be LED screen with 1TB hard disc and 4GB RAM. • Image processing algorithms should be based on multi frequency processing type. • Software should automatically mask the area outside the collimation. • Software should reduce the noise interference in low exposure imaging. • Software should be capable of manual adjustments of the masked area should be possible. • System must be capable to connect to PACS through Dicom Store. • System must be capable to print to dry laser printers through Dicom Print. • System must be able to acquire worklist from existing HIS/RIS. • System must be capable of burning patient images on CD/DVD. 					

<ul style="list-style-type: none"> • System must be able to remove grid lines. • System must be capable of running a QA/QC test to verify performance. • System should be capable of doing free angular rotation of images. • System is fully compliant with Storage Commitment requirements • System must be capable to export images to media such as USB, CD Rom etc • System must be capable of importing images into the database from various media type such as USB sticks, CD rom etc • System must allow to create annotations on images • System must make available advanced measurement tools such as lengths, angles. • System should have Optional feature of Reports can be created either from the main workstation or from any web client remotely connected • System offers the capability to crop images, zoom and print <p><u>Printer</u></p> <ul style="list-style-type: none"> • Printer must be Laser technology • Printer Should Have Single or Double online supply trays or draws. • Each tray or Draw of the printer must be able to print all the following international standard films sizes 8X10,10X12,11X14 and 14X17 without mechanical alteration • Printing resolution must be 320 dpi/ppi or more, standard for all type of DICOM image printing. • Printer must use day light film box loading technology. <p><u>Accessories</u></p> <p>Five (5) kilowatts UPS to support the CR system and give 1-2 hrs back up, Installation of Air conditioner for the CR unit, Cost of the 12 image phosphor plates (IPs), Lead gloves, aprons, goggles, thyroid shield etc., Positioning devices (essential item: perplex made positioning device for equine foot), At least two IPs of the following sizes needed:</p> <ul style="list-style-type: none"> • 14 x 17 in. (35x43 cm) • 12 x 15 in.(35x35 cm) • 11 x 14 in. (28x35 cm) • 10 x 12 in. (25x30 cm) • 8 x 10 in. (20x25 cm) 						
<p><u>Total Cost of the Package</u></p>						

**Signature of the Tenderer
With Seal**