

# Prabhat Kumar College, Contai

Re-accredited by NAAC with Grade B (CGPA - 2.76)

*Dr. Amit Kumar De*

Principal & Secretary  
Mob. - 9434259107



Post - Contai  
Dist. - Purba Medinipur  
West Bengal, India, 721401  
Phone : -Principal - (03220) 288275  
Office - (03220) 255020  
Tele Fax - (03220) 288275

## Notice Inviting E-Tender (wbtenders.gov.in)

E-Tender No : PKC/Purchase/Equip./18-19/05      Date: 17/01/2019

<b>Organisation Chain:</b> DEPARTMENT OF HIGHER EDUCATION   PRABHAT KUMAR COLLEGE
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<b>Tender ID</b> 2019_DHE_208101_1
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Tenders for supply of **PURCHASE OF LABORATORY EQUIPMENT UNDER DST FIST** are hereby invited from the vendors by PRABHAT KUMAR COLLEGE, CONTAI through the e-tendering process using the website <http://wbtenders.gov.in/>. The tender documents can be downloaded from Website: <http://wbtenders.gov.in/> and the notice can be downloaded from [www.pkcollegecontai.ac.in](http://www.pkcollegecontai.ac.in)

The tenders have to be submitted as per Terms & Conditions mentioned at Annexure-'A'. Format of Technical Bid mentioned at Annexure-'B', format of financial bid mentioned at Annexure-'C' and detailed specification, estimated quantity are mentioned at "Annexure-D".

The tender document containing "Technical bid" and financial bid", complete in all respect should be uploaded on <http://wbtenders.gov.in/> on or before **30/01/2019** which will be opened in the meeting of purchase committee of the College on **01.02.2019**.

Failure to furnish all information required as mentioned in the tender documents or submission of a proposal not substantially responsive to the tender documents in every respect will be at the vendor's risk and may result in rejection of the proposal and forfeiture of the bid.

The tender fees shall not be refunded even if the bid is not submitted. The vendors are required to be registered with <http://wbtenders.gov.in/>. The vendor must have valid digital signature to submit the bid.

The interested vendors fulfilling the terms and conditions should quote their minimum rates along with earnest money deposit as mentioned in the tender document.

The College Authority reserves the right to reject all or any of the tenders without assigning any reason thereof. The tender, which is conditional/ incomplete/ belated/ without earnest money, tender fees etc will not be entertained.

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## TENDER DOCUMENT

T.No.- PKC/NIT/Purchase/Equip./18-19/05	Date: 17.01.2019 Time: 5.00 PM
Name and address of the Authority	PRINCIPAL, Prabhat Kumar College, Contai, Contai, Purba Medinipur, 721 401- West Bengal, India
Tender Document for	<b><u>PURCHASE OF LABORATORY EQUIPMENT UNDER DST FIST</u></b>
Earnest Money	2% of the total quoted budget cost of the quoted item/s <b>** Selected successful bidder/s have to deposit their EMD within 15 days from the date of AOC.</b>
Cost of tender	Rs 2,000/-
Cost of tender processing	N.A.
Last date for submission of tender	30/01/2019 at 05:00 P.M.
Last date for submission of hard copy of Technical BID in sealed envelop	31/01/2019 within 04-00 p.m. (working days)
Technical Bid to be opened on	01/02/2019 at 01-00 p.m.
Financial Bid to be opened on	01/02/2019 at 01-00 p.m.
Last date for submission of written queries for clarifications	29/01/2019 within 05-00 p.m.
Contact person for queries	Principal, P.K. College, Contai (03220- 288275), 9007818596, 9434259107

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## ANNEXURE-'A'-(TERMS AND CONDITIONS)

1	Tender documents should be downloaded from website <a href="http://wbtenders.gov.in/">http://wbtenders.gov.in/</a> as per the dates mentioned in the Tender Document.
2	The vendor should use the electronic mode of tendering using the website <a href="http://wbtenders.gov.in/">http://wbtenders.gov.in/</a> to submit his/her best possible quotes for the items given therein.
3	Late submission will not be entertained and will not be permitted by the e-Tendering System.
4	Last minute submission should be avoided. As such the authority will not be responsible for any failures in submission of bids.
5	Incomplete or conditional bids will be summarily rejected.
6	The vendors are expected to examine all instructions, forms, terms and other information in the tender documents.
7	Tender will be uploaded separately through the e-Tendering System under Two Bid System viz Technical bid & Financial bid, as per the prescribed formats only. Failure to comply with these requirements may result in the bid being rejected.
8	The tender fees shall not be refunded even if the bid is not submitted.
9	The tender should be uploaded within <b>30/01/2019 at 01:00 PM</b> , along the scanned copy of NEFT/RTGS/ <del>OTC/debit card/credit card facility</del> /net banking challan. The tenders without the mentioned challans will not be entertained.
10	The Technical Bid and the Financial bid as per Annexure -B and Annexure-C are to be strictly uploaded to the e-tendering website mentioned.
11	Technical Bid and the Financial bids will be evaluated for each item and Purchase Order (P.O.) will be issued separately.
12	If any vendor does not qualify in technical evaluation, the Commercial Proposal of the vendor shall not be opened.
13	The price should not be mentioned in the Technical bid in any form or manner. In case the prices are mentioned in the technical bid, the offer will be liable for rejection.
14	The technical bid and financial bid will be opened on same date (01/02/2019).
15	The financial bid will be opened in respect of only those vendors whose documents are found in order and whose items qualify technically. The price comparisons in deciding lowest quotation for the complete value of all the items shall be made only over the rates quoted inclusive of all taxes and comprehensive on-site warranty support as required. The lowest evaluated valid quotation will be selected.
16	Technical Documents are to be scanned and uploaded to the e-tendering website.
17	<del>The vendor shall submit bank guarantee equal to 20% of the total cost of the goods. The College Authority shall be at liberty to enforce such bank guarantee in case the vendor fails to provide warranty of supplied goods/materials during warranty period or any other defaults in the execution of the order.</del>
18	The vendor must take the responsibility to deliver the equipment to the college campus. Vendor must provide for custom clearance, insurance and transport fee for the same. Tax-Exemption Certificate will be provided to the vendor and they have to arrange for custom

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	clearance accordingly. All the fees must be included in the quoted budget.
19	The EMD of successful vendor will be converted into security till the complete supply of equipment completely and refunded without any interest. The EMD of unsuccessful vendors will be returned after completion of tender process.
20	The successful vendor should supply the prescribed goods/materials within 15 days from the issue of purchase order (P.O.).
21	The payment will be released shortly (as situation will demand) immediately before / just after the delivery & installation of complete supply of equipment based on duly certified installation reports.
22	If the tenders opening day happens to be holiday, the same will be accepted and opened on the next working day.
23	The make / brand of the quoted materials/goods/ equipment must be mentioned clearly.
24	The person signing the tender form (or any other document forming part of the contract) on behalf of another, shall be deemed to warranty that he has the authority to sign such documents and if, on inquiry it appears that the person so signing had no authority to do so, the purchaser, may without prejudice to other civil and criminal remedies against the contract, holds the signatory liable for all costs and damages and forfeiture of the earnest money/tender fees.
25	The attempt on the part of the vendor, to negotiate directly or indirectly, with the authority to whom the tender is being submitted or with the tender accepting authority, before the finalization of tenders, will make vendor liable for exclusion from the consideration of his/her tender at present or at future.
26	The College authority reserves the right to reject all or any tender without assigning any reason(s).
27	<del>The approximate quantity to be purchased along with minimum hardware configuration &amp; specifications/ Lab equipments/Class goods/Reagents/Specimen required have been mentioned at Annexure "D". However, the College authority reserves the right to modify the quantity as per requirement of the College.</del>
28	The warranty shall cover the following: <ul style="list-style-type: none"><li>• If any part needs to be repaired/replaced, then the same shall be done within 48 Hrs of lodging complaints.</li><li>• <del>In case of failure for installing operating System (under computer &amp; equipments purchasing)/breakage of Glass equipments/Lab equipments; it should be completely liable to replace the specified vender to reinstall within specified time, failing which the payment will be withheld.</del></li></ul>
29	Hard Copy of the Technical bid only along with the challan mentioned at point 1 of the Annexure - B has to be submitted at P.K. College, Contai on or before 31/01/2019. <b>No Hard Copy of Financial Bid is to be submitted.</b> Financial bid has to be strictly uploaded on the <a href="http://wbtenders.gov.in/">http://wbtenders.gov.in/</a> , Any bid received with the Hard Copy of Financial Bid will be rejected summarily.
30	Any dispute, arising out of this contract will be under the jurisdiction of Courts at Contai, Purba Medinipur, West Bengal, India.

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## ANNEXURE 'B' (TECHNICAL BID FORMAT)

The technical bid should contain the following documents which must be attached with the technical bid:-

1. The vendor should submit the tender payments in the e-Payment mode towards Cost of the Tender Document, ~~EMD & Tender Processing Fee~~: To be paid online through e-payment mode via NEFT/RTGS/OTC/~~debit card/credit card facility~~/net banking, the details of Bank Account are given below -

Name of the Account - **Prabhat Kumar College, Contai,**  
Account No. - **11261185458,**  
IFSC - **SBIN0000057,**  
Name of the Bank - **SBI,**  
Branch - **School Bazar, Contai.**

The following amount have to be paid:

Sr.	Tender No.	Name of Work	Tender Fees (₹)	EMD (₹)	Period of delivery
1	<b><u>PKC/NIT/Purchase/Equip./18-19/05 dated 17.01.2019</u></b>	<b><u>PURCHASE OF LABORATORY EQUIPMENT UNDER DST FIST</u></b>	2000/-	2% of the total quoted budget cost	To be Delivered within 15 days from the PO

All the challans towards same has to be scanned and uploaded to the e-tendering website within the period of tender application submission. The payment challan along with the Hard Copy of the Technical Bid Only (Hard copy of the Financial Bid is not to be submitted. Financial bid to be uploaded only to the website mentioned) shall be placed in single envelope superscripted as "Technical Bid towards Tender No. **PKC/NIT/Purchase/Equip./18-19** for **PURCHASE OF LABORATORY EQUIPMENT UNDER DST FIST** and the due date of opening of the bid mentioned and to be deposited in the College office on or before 31.01.2019.

2. The person signing the tender shall be deemed that he has the authority to sign the tender on behalf of the said company. Letter of Authority to be attached.
3. Proof of Income Tax, GST Registration number (As applicable) Trade License etc: Self attested copies to be attached.
4. The product profile of the company along with last 3 years' turnover, not less than Rs. 5 Lakh per year. Audited Balance Sheet and Profit and Loss account (amount in Rupees) for last three years should be submitted.
5. Vendors should have experience to sell at least 10 similar equipment (including 5 of the quoted model) within India. They have to provide the list of users.
6. PAN No. of the company/firm, TIN No. (As applicable): Self attested copies to be attached.
7. The bidder should not have any of their contracts terminated or blacklisted in the last three years by any State or Central Government / PSU/ BFSI/ Private Sector. (Affidavit duly notarized to be submitted).

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## ANNEXURE-'C'- (FINANCIAL BID FORMAT) QUOTATIONS FOR PURCHASE OF LABORATORY EQUIPMENT UNDER DST FIST

### Financial Terms and Conditions:

- 1 The vendors must use only the format provided in the e-tender website for submitting the financials. Any other formats/ forms will not be accepted and such tenders will be rejected.
- 2 The vendor must provide the Financial Proposal strictly in e-tender mode only. Hardcopies of the Financial proposals are not to be submitted.
- 3 The rates should be quoted in figures as well as in words, on the form to be duly signed by the authorized person with proper stamp.
- 4 The College Authority reserves the right to alter the quantity of the Equipment.

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## ANNEXURE-'D' - SPECIFICATIONS AND CONFIGURATIONS

### Item No. - 1 Fluorescence Spectrophotometer

<b>Item:</b>	Fluorescence spectrophotometer
<b>Light Source:</b>	Pulse Xenon lamp. Should include Peak Power settings, 120Kw,80Kw,40Kw,20Kw
<b>Wavelength range:</b>	Excitation 200 -900 nm and Emission 200-900 nm or higher with zero order selectable
<b>Resolution</b>	1.0, 2.5, 5, 10nm or better
<b>Wavelength accuracy:</b>	Should be 0.5nm or better
<b>Wavelength reproducibility:</b>	0.2 nm or better
<b>Response:</b>	≥0.002, seconds or better
<b>Wavelength scan speed:</b>	24,000nm/min or higher
<b>Slit width:</b>	1, 2.5, 5, 10, 20 nm
<b>Sensitivity:</b>	Min 750 :1 (RMS)
<b>Monochromator:</b>	1200 grooves/mm or higher
<b>Photometric principle:</b>	Monochromatic light monitoring ration calculation
<b>Filter Wheel</b>	12 slots that accept standard 12.5 mm round filters.
<b>Standard Excitation Filters</b>	3 Excitation filters included. (290, 350, 530nm)
<b>Standard Emission Filters</b>	3 Emission filters included. (320, 430, 515nm)
<b>Sample container and holder:</b>	Standard cuvette for liquid samples (0.6 mL to3 mL). Solid sample holder to be quoted with the instrument
<b>Power supply:</b>	200-240 V 50/60Hz
<b>Software:</b>	Software for measurement of photoluminescence spectroscopy (PL) and photoluminescence excitation spectroscopy (PLE). Software should be easy and user friendly.
<b>Computer and interfacing:</b>	Vendor should provide a built in or external computer to operate the instrument with proper interfacing.
<b>Safety:</b>	It should be confirmed that system will follow safety standard and regulations concerning about the Electrical Hazards
<b>Warranty.</b>	Standard 2 years of complete warranty. After warranty, 1 year of annual maintenance is expected. Additional 1-year warranty should be quoted.
<b>Installation:</b>	Vendor should offer complete installation and training of the system at site
<b>After sales support:</b>	Vendor should have infrastructure and man power to support efficiently after installation. They should have stock of spare parts for the smooth running of the instrument if require after installation and must be available in Indian rupee. Equipment manufacturer should confirm in writing that spare parts will

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be available for the period of 10 years after installation of the instrument.

**User base:** List of at least 10 users of similar equipment (including 5 of the quoted model) in India should be enclosed with this offer. Vendor should mention the details such as installation date, user address, email, phone/mobile numbers etc.

**User Manual:** Vendor should a complete manual in English regarding the installation, safety and operation of the instrument.

## Item No.- 2 Double Beam UV-Visible Spectrophotometer

<b>Item:</b>	UV-Visible Spectrophotometer with Blazed holographic grating with 1200 lines per mm
<b>Wavelength Range</b>	190-1100 nm or better
<b>Lamp Source</b>	Tungsten / Deuterium Lamp
<b>Spectral Bandwidth</b>	0.5, 1, 2, 5, 20 nm variable or better
<b>Wavelength Accuracy</b>	$\pm 0.1$ nm for the entire wavelength range or better
<b>Photometric Absorbance</b>	+/- 4A or better
<b>Wavelength Reproducibility</b>	$\pm 0.1$ nm or better
<b>Detector</b>	Silicon Photodiode
<b>Photometric Reproducibility</b>	+/-0.001 Abs or better
<b>Photometric accuracy</b>	$\pm 0.004$ A or better
<b>Stray light</b>	<0.02% (220 nm NaI) or better
<b>Photometric Noise</b>	< 0.00005 Abs or better
<b>Photometric drift</b>	< 0.0003 Abs/h or better
<b>Baseline flatness</b>	$\pm 0.0005$ A or better
<b>Software</b>	Licensed Windows 7 or advanced version based user friendly software
<b>Cell</b>	2 pairs of cell
<b>Solid Sample Holder</b>	To be quoted with instrument for thin films, glass etc
<b>Power Supply Available:</b>	Power 90 VAC - 250 VAC, 50/60 Hz; 250 VA Temperature 10 °C - 35 °C Humidity 10-70% relative humidity, non-condensing
<b>Computer and interfacing:</b>	Vendor should provide a built in or external computer to operate the instrument with proper interfacing.
<b>Safety:</b>	It should be confirmed that system will follow safety standard and regulations concerning about the Electrical Hazards
<b>Warranty:</b>	Standard 2 years of complete warranty. After warranty, 1 year of annual maintenance is expected. Additional 1-year warranty should be quoted.
<b>Installation:</b>	Vendor should offer complete installation and training of the system at site
<b>After sales support:</b>	Vendor should have infrastructure and man power to support efficiently after installation. They should have stock of spare parts for the smooth running of the instrument if require after



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installation and must be available in Indian rupee. Equipment manufacturer should confirm in writing that spare parts will be available for the period of 10 years after installation of the instrument.

**User base:** List of at least 10 users of similar equipment (including 5 of the quoted model) in India should be enclosed with this offer. Vendor should mention the details such as installation date, user address, email, phone/mobile numbers etc.

**User Manual:** Vendor should provide a complete manual in English regarding the installation, safety and operation of the instrument.

## Item No.- 3 Table top X-ray Diffractometer

(for phase identification, qualitative and quantitative phase analysis of different powder samples, nanomaterials and thin films etc.)

**Instrument type :** Tabletop/ Benchtop

**Geometry:** Theta/Theta, sample is always horizontal or Theta / 2Theta – Vertical type with no spillage of sample in entire measurement range

**Goniometer radius:** Equal to 141 mm or above it. For high resolution 190 mm is desirable

**Max. usable angular range:** - 3 to 150° in 2Theta or more

**Minimum step size:** 0.005° in 2Theta

**Peak position accuracy:** Equal or better than +/- 0.02° in 2Theta over the whole angular range on NIST sample. (Necessary documentary evidence must be provided with the offer)

**Achievable Peak Width:** Minimum peak width (FWHM) better than 0.05° in 2Theta. Data collected from the XRD must be capable of performing Rietveld based quantitative and crystal structure analysis. (Necessary documentary evidence must be provided with the offer)

**X-ray generation:** Tube voltage 30 KV or higher; Tube current 15 mA or higher. Power 600 W

**X-ray tube:** Long line focus, 1.5 KW or more Cu ceramic x-ray tube with focus size 0.4 x 1.2 mm or more; spot focus and line focus is desirable

**Detector:** Si Point Detector or NaI(Tl) scintillation detector (Fluorescence screen) for X-ray detection with maximum count rate up to  $2 \times 10^6$  cps. We are expecting free maintenance.

**Sample Stage:** Rotating stage for specimen holder size 25 mm radius or above. The sample loading should be very simple. Sample holder with a size around 51.5 mm diameter should support powder sample and thin film.

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<b>Optics :</b>	Necessary primary and secondary slits along with k-beta filter
<b>Application:</b>	Instrument must be capable to analysis any type of powder sample and thin film also.
<b>Software:</b>	User friendly software specially designed for qualitative as well as quantitative phase identification and analysis. Software should support easy, fast and convenient interpretation of X-ray powder diffraction data. The software should be capable of simultaneous diffractometer control, data collection and analysis, integrated intensity, background fitting, Peak search and fitting, Spike method for quantitative analysis, Intensity ratio method for quantitative analysis, elaborate pattern treatment such as data smoothening, background subtraction, $k\alpha_2$ stripping, $2\theta$ -offset and sample displacement corrections, Crystallite size determination, Calculation of profile parameters etc. ICDD database search match (PDF4 or advanced), Search-Match for Crystallography Open Database. Rietveld refinement software should be provided.
<b>Cooling system:</b>	Preferable internal cooling system without any external chiller.
<b>Power supply:</b>	100-240 V, 50/60Hz
<b>Computer and interfacing:</b>	Built in or provision for connecting additional PC; 2 x USB and 1 x LAN
<b>Safety:</b>	Interlocked enclosure door for auto x-ray off. It should be confirmed that system will follow safety standard and regulations concerning about the X-ray radiation. Radiation dosage should below 1 micro-Sv/h at full load. Vendor should have documentation regarding the dosage amount. Protection device for overload detection, abnormality in tube voltage and/or tube current. X-rays should shut off on failure of any safety devices. Warning light on X-ray failure. Emergency stop switch.
<b>Warranty.</b>	Standard 2 years of complete warranty. After warranty, 1 year of annual maintenance is expected. Additional 1-year warranty should be quoted.
<b>Installation:</b>	Vendor should offer complete installation and training of the system at site
<b>After sales support:</b>	Vendor should have infrastructure and man power to support efficiently after installation. They should have stock of spare parts for the smooth running of the instrument if require after installation and must be available in Indian rupee. Equipment manufacturer should confirm in writing that spare parts will be available for the period of 10 years after installation of the instrument.
<b>User base:</b>	List of at least 10 users of similar equipment (including 5 of the quoted model) in India should be enclosed with this offer.

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## User Manual:

Vendor should mention the details such as installation date, user address, email, phone/mobile numbers etc.

Vendor should a complete manual in English regarding the installation, safety and operation of the instrument.



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